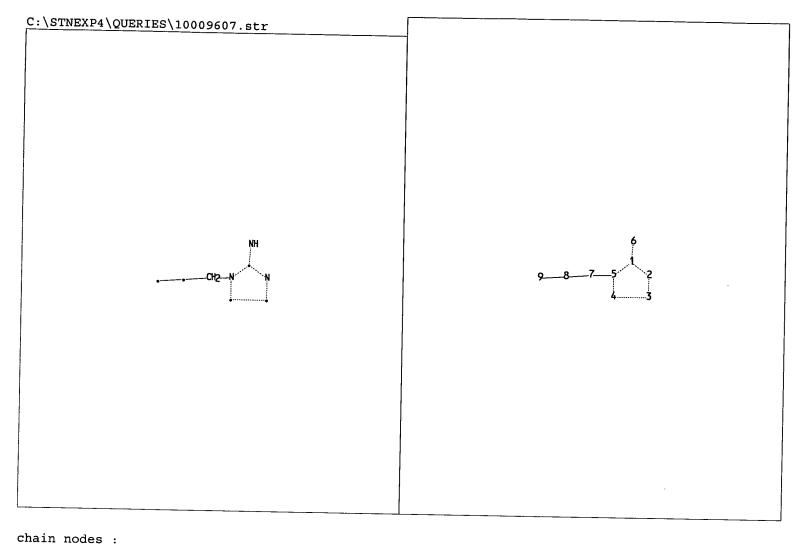
```
C:\STNEXP4\QUERIES\10009607.str
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```
6 7 9
ring nodes:
1 2 3 4 5
ring/chain nodes:
10
chain bonds:
1-6 5-7 7-9 9-10
ring bonds:
1-2 1-5 2-3 3-4 4-5
exact/norm bonds:
1-2 1-5 1-6 2-3 3-4 4-5
exact bonds:
5-7 7-9 9-10
isolated ring systems:
containing 1:
```

Match level :

chain nodes :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 9:CLASS 10:CLASS



```
6 7 8
ring nodes :
   1 2 3 4 5
ring/chain nodes :
   9
chain bonds :
    1-6 5-7 7-8 8-9
ring bonds :
    1-2 1-5 2-3 3-4 4-5
exact/norm bonds :
    1-2 1-5 1-6 2-3 3-4 4-5
exact bonds :
   5-7 7-8 8-9
isolated ring systems :
   containing 1 :
Match level :
   1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 9:CLASS
```

=>

Uploading 10009607.str

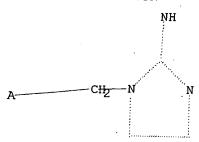
L1 STRUCTURE UPLOADED

=> d 11

L1 HAS NO ANSWERS

L1

STR



Structure attributes must be viewed using STN Express query preparation.

=> s 11 sss sam
SAMPLE SEARCH INITIATED 17:53:26 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 2011 TO ITERATE

49.7% PROCESSED 1000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED) SEARCH TIME: 00.00.01

34 ANSWERS

FULL FILE PROJECTIONS:

ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS:

37531 TO

42909

PROJECTED ANSWERS:

871 TO

1863

L2

34 SEA SSS SAM L1

=>

Uploading 10009607.str

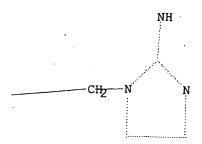
L3 STRUCTURE UPLOADED

=> d 13

L3 HAS NO ANSWERS

L3

STR



50 ANSWERS

Structure attributes must be viewed using STN Express query preparation.

=> s 13 sss sam

SAMPLE SEARCH INITIATED 17:55:59 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 797 TO ITERATE

100.0% PROCESSED

797 ITERATIONS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS:

14247 TO 17633

PROJECTED ANSWERS:

608 TO 1472

50 SEA SSS SAM L3

=> ....Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end

=> screen 2016 OR 2026 OR 2039 OR 2040 OR 2045 OR 2047

L5 SCREEN CREATED

Uploading C:\STNEXP4\QUERIES\10009607.str

STRUCTURE UPLOADED

≈> que L6 NOT L5

L7 QUE L6 NOT L5

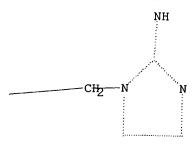
=> d 17

L7 HAS NO ANSWERS

L5

SCR 2016 OR 2026 OR 2039 OR 2040 OR 2045 OR 2047

L6



Structure attributes must be viewed using STN Express query preparation. QUE L6 NOT L5

=> s 17 sss sam

SAMPLE SEARCH INITIATED 18:01:58 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 724 TO ITERATE

100.0% PROCESSED 724 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED) SEARCH TIME: 00.00.01

50 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: PROJECTED ANSWERS:

12866 TO 160

12866 TO 16094 592 TO 1448

9 50

50 SEA SSS SAM L6 NOT L5

=> s 17 sss ful FULL SEARCH INITIATED 18:02:25 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 15039 TO ITERATE

100.0% PROCESSED 15039 ITERATIONS SEARCH TIME: 00.00.01

899 ANSWERS

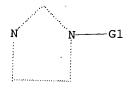
L9

899 SEA SSS FUL L6 NOT L5

=> Uploading 10009607 (sub1).str

L10 STRUCTURE UPLOADED

=> d 110 L10 HAS NO ANSWERS L10 STR



G1 0, S, N

Structure attributes must be viewed using STN Express query preparation.

=> s 110 sub=19 sss sam SAMPLE SUBSET SEARCH INITIATED 18:04:00 FILE 'REGISTRY' SAMPLE SUBSET SCREEN SEARCH COMPLETED - 13 TO ITERATE

100.0% PROCESSED 13 ITERATIONS SEARCH TIME: 00.00.01

13 ANSWERS

PROJECTIONS (WITHIN SPECIFIED SUBSET): ONLINE \*\*COMPLETE\*\*
PROJECTED ITERATIONS (WITHIN SPECIFIED SUBSET): 44 TO 476
PROJECTED ANSWERS (WITHIN SPECIFIED SUBSET): 44 TO 476

L11 13 SEA SUB=L9 SSS SAM L10

=> s 110 sub=19 sss ful

# 10/009,607

FULL SUBSET SEARCH INITIATED 18:04:57 FILE 'REGISTRY' FULL SUBSET SCREEN SEARCH COMPLETED - 235 TO ITERATE

100.0% PROCESSED 235 ITERATIONS SEARCH TIME: 00.00.01

235 ANSWERS

235 SEA SUB=L9 SSS FUL L10

=> s 19 not 112

L13 664 L9 NOT L12

=> d his

(FILE 'HOME' ENTERED AT 17:52:55 ON 26 JUN 2003)

FILE 'REGISTRY' ENTERED AT 17:52:59 ON 26 JUN 2003 L1 STRUCTURE UPLOADED L2 34 S L1 SSS SAM L3 STRUCTURE UPLOADED L450 S L3 SSS SAM SCREEN 2016 OR 2026 OR 2039 OR 2040 OR 2045 OR 2047 L5L6 STRUCTURE UPLOADED L7 QUE L6 NOT L5 L8 50 S L7 SSS SAM L9 899 S L7 SSS FUL L10 STRUCTURE UPLOADED L1113 S L10 SSS SAM SUB=L9 L12 235 S L10 SSS FUL SUB=L9 L13 664 S L9 NOT L12

FILE 'CAPLUS' ENTERED AT 18:05:08 ON 26 JUN 2003

=> s 113

234 L13

=> ....Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end

=> screen 2016 OR 2026 OR 2039 OR 2040 OR 2045 OR 2047

L15 SCREEN CREATED

=>

Uploading C:\STNEXP4\QUERIES\10009607.str

L16 STRUCTURE UPLOADED

=> que L16 NOT L15

L17 QUE L16 NOT L15

=> s 117 sub=19 sss sam SAMPLE SUBSET SEARCH INITIATED 18:08:34 FILE 'REGISTRY' SAMPLE SUBSET SCREEN SEARCH COMPLETED - 51 TO ITERATE

100.0% PROCESSED 51 ITERATIONS

17 ANSWERS

#### 10/009,607

SEARCH TIME: 00.00.01

PROJECTIONS (WITHIN SPECIFIED SUBSET): ONLINE \*\*COMPLETE\*\*

PROJECTED ITERATIONS (WITHIN SPECIFIED SUBSET):

PROJECTED ANSWERS (WITHIN SPECIFIED SUBSET):

592 TO 1448
93 TO 587

L18 17 SEA SUB=L9 SSS SAM L16 NOT L15

=> s 117 sub=19 sss ful FULL SUBSET SEARCH INITIATED 18:08:42 FILE 'REGISTRY' FULL SUBSET SCREEN SEARCH COMPLETED - 899 TO ITERATE

100.0% PROCESSED 899 ITERATIONS SEARCH TIME: 00.00.01 256 ANSWERS

L19 256 SEA SUB=L9 SSS FUL L16 NOT L15

=> s 119 L20 66 L19

=> d 120 1-66 bib,ab,hitstr

```
ANSWER 1 OF 66 CAPLUS COPYRIGHT 2003 ACS
  L20
  AN
       2003:434540 CAPLUS
       Preparation of substituted aryl pyrazine derivatives as CRF1 receptor
  ΤI
       antagonists useful against anxiety disorders, depression and stress
       related disorders
      Verhoest, Patrick R.; Hoffman, Robert L.; Corbett, Jeffrey W.; Ennis,
 IN
      Michael D.; Frank, Kristine E.; Fu, Jian-Min
 PÀ
      Pharmacia & Upjohn Company, USA
      PCT Int. Appl., 271 pp.
      CODEN: PIXXD2
 DT
      Patent
 LΑ
      English
 FAN.CNT 1
      PATENT NO.
                       KIND
                              DATE
                                             APPLICATION NO.
                                                              DATE
 PΙ
      WO 2003045924
                             20030605
                        Α1
                                            WO 2002-US33642
                                                              20021115
              AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
              GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
              LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
              PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT,
              TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ,
              MD, RU, TJ, TM
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
              CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
              PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
              NE, SN, TD, TG,
 PRAI US 2001-332052P
                             20011121
                        Ρ
      US 2002-358546P
                        Ρ
                             20020221
     US 2002-338285P
                        Ρ
                             20020613
     US 2002-410378P
                        Ρ
                             20020913
     Substituted aryl 1,4-pyrazine derivs. (shown as I; variables defined
     below; e.g. 5-(2,4-dichlorophenyl)-N-((1R,2S)-2-ethoxy-2,3-dihydro-1H-
     inden-1-yl)-3,6-diethylpyrazin-2-amine) and their use in treating anxiety
     disorders, depression and stress related disorders are disclosed.
     binding affinity of I for the corticotropin releasing factor type I
     receptor expressed as IC50 values generally ranges from .apprx.0.5 nM to
     .apprx.10 .mu.M; no specific values are given. Although the methods of
     prepn. are not claimed, 131 example prepns. of I and 190 example prepns.
     of intermediates are included. For I: X = -NR3R4, -OR3, -CR3R5R5,
     -C(0)R3, -S(0)mR3, -NR3C(0)R4, or -NR3S(0)mR4, m = 0-2; Ar = ary1,
     substituted aryl, heteroaryl, or substituted heteroaryl; R1, R2, and R5 = \frac{1}{2}
     halogen, -NO2, -CN, -Ra, -ORa, -S(O)mRa, -NRaRa, -C(O)NRaRa, -C(S)NRaRa,
     -S(O)mNRaRa, -NRaS(O)mRa, -NRaC(O)ORa, -OC(O)NRaRa, -NRaC(O)NRaRa,
     -NRaC(S)NRaRa, -C(O)ORa, -C(S)ORa, or -OC(O)ORa. R3 and R4 = Ra or
     substituted and/or unsubstituted heterocycloalkyl, heteroaryl, aryl, aryl
     cycloalkyl, heteroaryl cycloalkyl, aryl heterocycloalkyl, or heteroaryl
     heterocycloalkyl; Ra H, alkyl, cycloalkyl, haloalkyl, aryl, heteroaryl,
    or heterocycloalkyl (un) substituted with 1 to 5 of Rt, -ORt, -S(O)mRt,
    NRtRt, oxo, thione (:S), Ph, heteroaryl, or heterocycloalkyl; Rt = H,
    halogen, -NO2, -NH2, -OH, -SH, -CN, -C(0)NH2, - C(0)NHalkyl,
    -C(O)Nalkylalkyl, -Oalkyl, NHalkyl, Nalkylalkyl, -S(O)malkyl, SO2NH2,
    SO2NHalkyl and SO2Nalkylalkyl, alkyl, cycloalkyl, haloalkyl, Ph, benzyl,
    heteroaryl, or heterocycloalkyl; addnl. details including specifically
    excluded compds. are given in the claims. Compds. I are also claimed
    effective for screening ligands for CRF1 receptors and for detecting CRF1
    receptors in tissues.
ΙT
```

535936-84-6P

RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate and receptor detection and ligand screening agent; prepn. of substituted aryl pyrazine derivs. as CRF1 receptor antagonists useful against anxiety disorders, depression and stress related disorders)

RN 535936-84-6 CAPLUS
CN Pyrazinamine 5-12

Pyrazinamine, 5-(2,4-dichlorophenyl)-3,6-diethyl-N-(1-propyl-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)

\*\*\* FRAGMENT DIAGRAM IS INCOMPLETE \*\*\*

IT 535936-82-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of substituted aryl pyrazine derivs. as CRF1 receptor antagonists useful against anxiety disorders, depression and stress related disorders)

RN 535936-82-4 CAPLUS

CN 1H-Imidazol-2-amine, 1-propyl- (9CI) (CA INDEX NAME)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 2 OF 66 CAPLUS COPYRIGHT 2003 ACS
  L20
       2003:133263 CAPLUS
 AN
 DN
       138:170241
       Preparation of benzazepine derivatives as CCR5 antagonists
 TI
       Shiraishi, Mitsuru; Baba, Masanori; Seto, Masaki; Aramaki, Yoshio;
 IN
       Kanzaki, Naoyuki; Miyamoto, Naoki; Iizawa, Yuji
       Takeda Chemical Industries, Ltd., Japan
 PA
 SO
       PCT Int. Appl., 584 pp.
       CODEN: PIXXD2
 DT
       Patent
 LΑ
       Japanese
 FAN.CNT 1
      PATENT NO.
                         KIND
                                                APPLICATION NO.
                                                                  DATE
 ΡI
      WO 2003014110
                                20030220
                          A1
                                                WO 2002-JP8045
                                                                  20020807
              AE, AG, AL, AM,
                                AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
               CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
               GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS,
               LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL,
               PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
               TJ, TM
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
               CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
               PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
              NE, SN, TD, TG
      JP 2003119191
                         A2
                               20030423
                                               JP 2002-229553
                                                                  20020807
PRAI JP 2001-240718
                               20010808
      MARPAT 138:170241
      The title compds. I [R1 represents a substituted arom. ring; R2 represents
AB 
      lower alkyl, etc.; Y represents optionally substituted imino; rings A and
     B each represents an optionally substituted arom. ring; and W represents W1X2W2; W1 and W2 each represents S(0)m (m is 0, 1, or 2), etc., and X2
     represents optionally substituted alkylene, etc.] are prepd. In an in
     vitro test for CCR5 antagonism, compds. of this invention at 1 .mu.M gave
     88% to 100% binding inhibition. A process for prepg. I is disclosed.
     Formulations are given.
IT
     497852-47-8P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (prepn. of benzazepine derivs. as CCR5 antagonists)
RN
     497852-47-8 CAPLUS
     1H-1-Benzazepine-4-carboxamide, 7-[4-(2-butoxyethoxy)phenyl]-2,3-dihydro-1-
CN
     propyl-N-[4-[[(1-propyl-1H-imidazol-2-yl)amino]methyl]phenyl]- (9CI)
     INDEX NAME)
```

PAGE 1-A

$$N \rightarrow Pr$$
 $N \rightarrow NH \rightarrow CH_2 \rightarrow CH_2$ 

PAGE 1-B

— oBu−n

RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 3 OF 66 CAPLUS COPYRIGHT 2003 ACS
 AN
      2002:849599
                   CAPLUS
 DN
      137:353022
      Preparation of 2-iminoimidazole derivatives as thrombin receptor
 ΤI
      antagonists
      Suzuki, Shuichi; Kotake, Makoto; Miyamoto, Mitsuaki; Kawahara, Tetsuya;
 IN
      Kajiwara, Akiharu; Hishinuma, Ieharu; Okano, Kazuo; Miyazawa, Syuhei;
     Clark, Richard; Ozaki, Fumihiro; Sato, Nobuaki; Shinoda, Masanobu; Kamada,
     Atsushi; Tsukada, Itaru; Matsuura, Fumiyoshi; Naoe, Yoshimitsu; Terauchi,
     Taro; Oohashi, Yoshiaki; Ito, Osamu; Tanaka, Hiroshi; Musya, Takashi;
     Kogushi, Motoji; Kawada, Tsutomu; Matsuoka, Toshiyuki; Kobayashi, Hiroko;
     Chiba, Kenichi; Kimura, Akifumi; Ono, Naoto
 PΑ
     Eisai Co., Ltd., Japan
 SO
     PCT Int. Appl., 171 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     Japanese
FAN.CNT 4
     PATENT NO.
                       KIND
                             DATE
                                            APPLICATION NO.
                                                             DATE
ΡI
     WO 2002088092
                       A1
                            20021107
                                            WO 2002-JP3950
                                                             20020419
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, Ib, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
             TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRAI JP 2001-121829
                       Α
                            20010419
     JP 2001-269422
                       Α
                            20010905
OS
     MARPAT 137:353022
     The 2-iminoimidazole derivs. represented by the formula (I) or salts
AΒ
     thereof [wherein R1, R2, R3 = H, cyano, halo, each (un)substituted C1-6
     alkyl, alkylidene, C2-6 alkenyl, C2-6 alkynyl, acyl, CO2H, CONH2, C1-6
    alkoxycarbonyl, C1-6 alkylaminocarbonyl, HO, C1-6 alkoxy, etc.; or R1 and
    R2 are linked together to form a 5-membered ring; R6 = H, C1-6 alkyl,
    acyl, CONH2, HO, C1-6 alkoxy, C1-6 alkyloxycarbonyloxy, C3-8 cycloalkyl,
    optionally acyloxy-substituted C1-6 alkyloxycarbonyl, etc.; Y1 = a single
    bond, (CH2)m (wherein m = an integer of 1-3), each (un) substituted CH,
    CH2, NH, CONH, or SO2NH, etc.; Y2 = a single bond, O, (CH2)m (m = same as
    above), CO, SO, SO2, each (un) substituted CH, CH2, or C(:NOH); Ar = H,
    (un) substituted Ph or a 5- to 14-membered arom. heterocyclyl] are prepd.
    These compds. are antagonists of thrombin receptors, in particular
    thrombin PAR1 receptor, platelet aggregation inhibitors, or proliferation
    inhibitors of smcoth muscle cell, endothelial cell, fibroblast, kidney
    cell, osteosarcoma cell, muscle cell, cancer cell and/or glial cell.
    are remedies and/or preventives of thrombosis, vascular restenosis, deep
    venous thrombosis, lung embolism, cerebral infarction, heart disease,
    disseminated intravascular coagulation syndrome, hypertension,
    inflammation, rheumatism, asthma, glomerulonephritis, osteoporosis,
    neuropathy and/or malignant tumor. Thus, a soln. of 305 mg
    1-(3-ethylpentyl)-1H-2-imidazoleamine and 660 mg 2-bromo-1-[3,5-di(tert-
    butyl)-4-hydroxyphenyl]-1-ethanone in 20 mL ethanol was heated at
    60.degree. for 3 h to give 700 mg 1-[3,5-di(tert-butyl)-4-hydroxyphenyl]-2-
    [3-(3-ethylpentyl)-2-imino-2,3-dihydroimidazol-1-yl]ethanone hydrobromide
```

(II). II showed IC50 of 0.074 .mu.M for inhibiting the

```
[3H]Ala-(4-fluoro)Phe-Arg-(cyclohexyl)Ala-(homo)Arg-NH2 binding on human
      platelet membrane in a thrombin receptor binding assay, that of 0.54 .mu.M
      for inhibiting the thrombin-induced human platelet aggregation, and that
      of 0.3 .mu.M for inhibiting the proliferation of rat aortic smooth muscle
      cell.
 IT
      474671-16-4P 474671-18-6P 474671-19-7P
      474671-21-1P 474671-22-2P 474671-23-3P
      474671-25-5P 474671-26-6P 474671-27-7P
      474671-32-4P 474671-33-5P 474671-34-6P
      474671-38-0P 474671-42-6P 474671-46-0P
      474671-48-2P 474671-52-8P 474671-53-9P
      474671-54-0P 474671-55-1P 474671-56-2P
      474671-57-3P 474671-58-4P 474671-59-5P
     474671-60-8P 474671-61-9P 474671-62-0P
     474671-64-2P 474671-65-3P 474671-66-4P
     474671-67-5P 474671-69-7P 474671-71-1P
     474671-73-3P 474671-74-4P 474671-75-5P
     474671-76-6P 474671-77-7P 474671-79-9P .
     474671-81-3P 474671-82-4P 474671-83-5P
     474671-84-6P 474671-85-7P 474671-86-8P
     474671-87-9P 474671-88-0P 474671-89-1P
     474671-90-4P 474671-91-5P 474671-92-6P
     474671-93-7P 474671-94-8P 474671-95-9P
     474671-96-0P 474671-97-1P 474671-98-2P
     474671-99-3P 474672-00-9P 474672-01-0P
     474672-02-1P 474672-03-2P 474672-04-3P
     474672-05-4P 474672-09-8P 474672-11-2P
     474672-14-5P 474672-18-9P 474672-23-6P
     474672-29-2P 474672-30-5P 474672-32-7P
     474672-46-3P 474672-49-6P 474672-50-9P
     474672-51-0P 474672-52-1P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (prepn. of 2-iminoimidazole derivs. as thrombin receptor antagonists,
        platelet aggregation inhibitors, or cell proliferation inhibitors for
        prevention and/or treatment of diseases)
     474671-16-4 CAPLUS
RN
     Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[3-(3-
CN
    ethylpentyl)-2,3-dihydro-2-imino-1H-imidazol-1-yl]-, monohydrobromide
     (9CI) (CA INDEX NAME)
```

# • HBr

RN 474671-18-6 CAPLUS CN Ethanone, 1-[3,5-bis

Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[2,3-dihydro-2-imino-3-(phenylmethyl)-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

#### ● HBr

RN 474671-19-7 CAPLUS

CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[2,3-dihydro-2-imino-5-phenyl-3-(phenylmethyl)-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

● HBr

RN 474671-21-1 CAPLUS

CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-(3-heptyl-2,3-dihydro-2-imino-1H-imidazol-1-yl)-, monohydrobromide (9CI) (CA INDEX NAME)

HBr

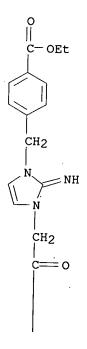
RN 474671-22-2 CAPLUS

CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[2,3-dihydro-2-imino-3-(2-pyridinylmethyl)-1H-imidazol-1-yl]-, monohydrobromide (9CI)

(CA INDEX NAME)

RN 474671-23-3 CAPLUS
CN Benzoic acid, 4-[[3-[2-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-oxoethyl]-2,3-dihydro-2-imino-1H-imidazol-1-yl]methyl]-, ethyl ester, monohydrobromide (9CI) (CA INDEX NAME)

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HBr

RNCN

474671-25-5 CAPLUS
Benzoic acid, 4-[[3-[2-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-oxoethyl]-2,3-dihydro-2-imino-1H-imidazol-1-yl]methyl]-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 474671-24-4  $\mathsf{CMF}$ C27 H33 N3 O4

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ÒН

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 474671-26-6 CAPLUS

CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[2,3-dihydro-2-imino-3-[(2-methylphenyl)methyl]-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

RN 474671-27-7 CAPLUS

CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[2,3-dihydro-3-(6-hydroxyhexyl)-2-imino-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

# HBr

RN 474671-32-4 CAPLUS
CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[3-[2-(diethylamino)ethyl]-2,3-dihydro-2-imino-1H-imidazol-1-yl]-,
monohydrobromide (9CI) (CA INDEX NAME)

#### • HBr

RN 474671-33-5 CAPLUS
CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[2,3-dihydro-2-imino-3-[2-(1-piperidinyl)ethyl]-1H-imidazol-1-yl]-, monohydrobromide

(9CI) (CA INDEX NAME)

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OH

● HBr

RN 474671-34-6 CAPLUS
CN Ethanone, 2-[3-[[4-(aminomethyl)phenyl]methyl]-2,3-dihydro-2-imino-1Himidazol-1-yl]-1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-,
monohydrochloride (9CI) (CA INDEX NAME)

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он

● HCl

RN 474671-38-0 CAPLUS

CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[2,3-dihydro-2-imino-5-methyl-3-(phenylmethyl)-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

# • HBr

RN 474671-42-6 CAPLUS
CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[5-ethyl-2,3-dihydro-2-imino-3-(phenylmethyl)-1H-imidazol-1-yl]-, monohydrobromide
(9CI) (CA INDEX NAME)

#### • HBr

RN 474671-46-0 CAPLUS

CN Ethanone, 2-[5-amino-2,3-dihydro-2-imino-3-(phenylmethyl)-1H-imidazol-1-yl]-1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-,
mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 474671-45-9 CMF C26 H34 N4 O2

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 474671-48-2 CAPLUS

CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[2,3-dihydro-2-imino-5-methoxy-3-(phenylmethyl)-1H-imidazol-1-yl]-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 474671-47-1 CMF C27 H35 N3 O3

CM2

CRN 76-05-1 CMF C2 H F3 O2

CN

RN

474671-52-8 CAPLUS Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[2,3-dihydro-2-imino-3-(3-methylbutyl)-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA

# • HBr

RN 474671-53-9 CAPLUS
CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[3-(2-ethylbutyl)-2,3-dihydro-2-imino-1H-imidazol-1-yl]-, monohydrobromide (9CI)

# HBr

RN 474671-54-0 CAPLUS
CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[3-(2-cyclopentylethyl)-2,3-dihydro-2-imino-1H-imidazol-1-yl]-, monohydrobromide
(9CI) (CA INDEX NAME)

RN 474671-55-1 CAPLUS CN

Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[3-(2-cyclohexylethyl)-2,3-dihydro-2-imino-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

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ОН

HBr

474671-56-2 CAPLUS Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[3-(4-RNCN ethylhexyl)-2,3-dihydro-2-imino-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

HBr

RN

474671-57-3 CAPLUS Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[3-(3-ethyl-2-CN hydroxypentyl)-2,3-dihydro-2-imino-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

RN 474671-58-4 CAPLUS
CN 2-Pentanone, 1-[3-[2-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2oxoethyl]-2,3-dihydro-2-imino-1H-imidazol-1-yl]-3-ethyl-, monohydrobromide
(9CI) (CA INDEX NAME)

RN 474671-59-5. CAPLUS
CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[2,3-dihydro-2-imino-4-methyl-3-(phenylmethyl)-1H-imidazol-1-yl]-, monohydrobromide (9CI)

• HBr

RN 474671-60-8 CAPLUS

CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[3-(3-ethyl-3-hydroxypentyl)-2,3-dihydro-2-imino-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

RN 474671-61-9 CAPLUS

CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[5-butyl-2,3-dihydro-2-imino-3-(phenylmethyl)-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

# • HBr

RN 474671-62-0 CAPLUS
CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[2,3-dihydro-2-imino-3-(2-phenylethyl)-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA

#### • HBr

RN 474671-64-2 CAPLUS
CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[3-(2-cyclobutylideneethyl)-2,3-dihydro-2-imino-1H-imidazol-1-yl]-,
monohydrobromide (9CI) (CA INDEX NAME)

RN 474671-65-3 CAPLUS
CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[3-(2-cyclobutylethyl)-2,3-dihydro-2-imino-1H-imidazol-1-yl]-, monohydrobromide
(9CI) (CA INDEX NAME)

RN 474671-66-4 CAPLUS
CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[2,3-dihydro-2-imino-3-(3-propylhexyl)-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA

#### • HBr

RN 474671-67-5 CAPLUS CN Ethanone, 1-13.5-bis

Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[3-(3-ethyl-2-pentenyl)-2,3-dihydro-2-imino-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

#### HBr

RN 474671-69-7 CAPLUS

CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[3-(3-ethyl-3-methoxypentyl)-2,3-dihydro-2-imino-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

RN 474671-71-1 CAPLUS

CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[3-(2-cyclopropylethyl)-2,3-dihydro-2-imino-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

RN 474671-73-3 CAPLUS

CN 2(3H)-Benzofuranone, 7-(1,1-dimethylethyl)-5-[[3-(3-ethylpentyl)-2,3-dihydro-2-imino-1H-imidazol-1-yl]acetyl]-3,3-dimethyl-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 474671-72-2

CMF C26 H37 N3 O3

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 474671-74-4 CAPLUS

CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[2,3-dihydro-2-imino-5-[(phenylmethoxy)methyl]-3-(phenylmethyl)-1H-imidazol-1-yl]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 474671-75-5 CAPLUS

CN 1H-Imidazole-1-acetamide, 3-[2-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-oxoethyl]-N,N-diethyl-2,3-dihydro-2-imino-,

# monohydrobromide (9CI) (CA INDEX NAME)

RN 474671-76-6 CAPLUS

CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[2,3-dihydro-2-imino-3-[(2-propoxyphenyl)methyl]-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

RN 474671-77-7 CAPLUS

CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[3-[(2-butylphenyl)methyl]-2,3-dihydro-2-imino-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

RN 474671-79-9 CAPLUS

CN 1H-Imidazole-4,5-dicarbonitrile, 2-[[2-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-oxoethyl]amino]-1-(3-ethylpentyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{CH}_2-\text{CH}_2-\text{CHEt}_2 & \text{t-Bu} \\ \text{O} & \text{OH} \\ \text{NC} & \text{NH-CH}_2-\text{C} \\ \text{NC} & \text{Bu-t} \\ \end{array}$$

RN 474671-81-3 CAPLUS

CN 1H-Imidazole-4-carbonitrile, 1-[2-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-oxoethyl]-2,3-dihydro-2-imino-3-(phenylmethyl)-, monohydrobromide (9CI) (CA INDEX NAME)

# • HBr

RN 474671-82-4 CAPLUS

CN 1H-Imidazole-4-carbonitrile, 1-[2-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-oxoethyl]-3-(3-ethylpentyl)-2,3-dihydro-2-imino-, monohydrobromide (9CI) (CA INDEX NAME)

#### HBr

RN 474671-83-5 CAPLUS

CN lH-Imidazole-4-carbonitrile, 3-[2-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-oxoethyl]-2,3-dihydro-2-imino-1-(phenylmethyl)-, monohydrobromide (9CI) (CA INDEX NAME)

## HBr

RN474671-84-6 CAPLUS

1H-Imidazole-4-carbonitrile, 3-[2-[3,5-bis(1,1-dimethylethyl)-4-indimethylethyl]CN hydroxyphenyl]-2-oxoethyl]-1-(3-ethylpentyl)-2,3-dihydro-2-imino-, monohydrobromide (9CI) (CA INDEX NAME)

# ● HBr

474671-85-7 CAPLUS RN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[3-(3-CN ethylpentyl)-2,3-dihydro-2-imino-5-(phenylmethyl)-1H-imidazol-1-yl]-,

monohydrobromide (9CI) (CA INDEX NAME)

# • HBr

RN 474671-86-8 CAPLUS
CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[3-(3-ethylpentyl)-2,3-dihydro-2-imino-1H-imidazol-1-yl]-, oxime, monohydrobromide (9CI) (CA INDEX NAME)

#### HBr

RN 474671-87-9 CAPLUS
CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[2,3-dihydro-2-imino-3-(phenylmethyl)-4-propyl-1H-imidazol-1-yl]-, oxime, monohydrobromide (9CI) (CA INDEX NAME)

HBr

RN 474671-88-0 CAPLUS

CN 1H-Imidazole-1-acetic acid, .alpha.-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methylene]-3-(3-ethyl-2-oxopentyl)-2,3-dihydro-2-imino-, ethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

RN 474671-89-1 CAPLUS

CN Ethanone, 2-[3-(2-bicyclo[2.2.1]hept-7-ylethyl)-2,3-dihydro-2-imino-1H-imidazol-1-yl]-1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-, monohydrobromide (9CI) (CA INDEX NAME)

HBr

RN 474671-90-4 CAPLUS

CN Carbamic acid, [2-bromo-4-[[3-(3-ethylpentyl)-2,3-dihydro-2-imino-1H-imidazol-1-yl]acetyl]phenyl]-, 1,1-dimethylethyl ester, monohydrobromide (9CI) (CA INDEX NAME)

RN 474671-91-5 CAPLUS

CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[2,3-dihydro-2-imino-3-[2-(1-piperidinyl)ethyl]-4-propyl-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

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OH

● HBr

RN 474671-92-6 CAPLUS
CN 2-Pentanone, 1-[3-[2-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-oxoethyl]-2,3-dihydro-2-imino-1H-imidazol-1-yl]-3-ethyl-1-fluoro-, monohydrochloride (9CI) (CA INDEX NAME)

RN 474671-93-7 CAPLUS

CN 1H-Imidazole-4-carboxylic acid, 1-[2-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-oxoethyl]-3-(3-ethylpentyl)-2,3-dihydro-2-imino-, ethylester, monohydrobromide (9CI) (CA INDEX NAME)

• HBr

RN 474671-94-8 CAPLUS

CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[3-(3-ethylpentyl)-2,3-dihydro-4,5-bis(hydroxymethyl)-2-imino-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

# HBr

RN 474671-95-9 CAPLUS
CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[3-(3-ethylpentyl)-2,3-dihydro-4-(hydroxymethyl)-2-imino-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

#### HBr

RN 474671-96-0 CAPLUS
CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[3-(3-ethylpentyl)-2,3-dihydro-5-(hydroxymethyl)-2-imino-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

## • HBr

RN 474671-97-1 CAPLUS
CN Morpholine, 4-[[1-[2-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-oxoethyl]-3-(3-ethylpentyl)-2,3-dihydro-2-imino-1H-imidazol-4-yl]carbonyl], monohydrobromide (9CI) (CA INDEX NAME)

#### HBr

RN 474671-98-2 CAPLUS
CN Benzoic acid, 4-[[3-[2-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-oxoethyl]-2,3-dihydro-2-imino-5-propyl-1H-imidazol-1-yl]methyl]-, ethyl ester, monohydrobromide (9CI) (CA INDEX NAME)

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HBr

RN

474671-99-3 CAPLUS
Benzoic acid, 4-[[3-[2-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-oxoethyl]-2,3-dihydro-2-imino-5-propyl-1H-imidazol-1-yl]methyl]-,
monohydrobromide (9CI) (CA INDEX NAME) CN

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) OH

• HBr

RN 474672-00-9 CAPLUS
CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[2,3-dihydro-3-(2-hydroxyethyl)-2-imino-4-propyl-1H-imidazol-1-yl]-, monohydrobromide

# • HBr

RN 474672-01-0 CAPLUS
CN Ethanone, 2-(2-amino-4-propyl-1H-imidazol-1-yl)-1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-, monohydrobromide (9CI) (CA INDEX NAME)

# • HBr

RN 474672-02-1 CAPLUS
CN Ethanone, 1-[7-(1,1-dimethylethyl)-2,3-dihydro-3,3-dimethyl-5-benzofuranyl]-2-[3-(3-ethylpentyl)-2,3-dihydro-2-imino-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

HBr

RN 474672-03-2 CAPLUS CN Ethanone 1-13-1dim

Ethanone, 1-[3-(dimethylamino)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[3-(3-ethylpentyl)-2,3-dihydro-2-imino-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

• HBr

RN 474672-04-3 CAPLUS

CN Ethanone, 2,2'-(2-imino-4-propyl-1H-imidazole-1,3(2H)-diyl)bis[1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-, monohydrochloride (9CI) (CA INDEX NAME)

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# ● HCl

# RN 474672-05-4 CAPLUS

Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[2,3-dihydro-3-(3-hydroxypropyl)-2-imino-4-propyl-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

● HBr

CN

RN 474672-09-8 CAPLUS

Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[3-(3-ethylpentyl)-2,3-dihydro-2-imino-4-phenyl-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

• HBr

RN 474672-11-2 CAPLUS

CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[3-(3-ethyl-2-fluoropentyl)-2,3-dihydro-2-imino-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

RN 474672-14-5 CAPLUS
CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[3-(3-ethyl-2,2-difluoro-3-methoxypentyl)-2,3-dihydro-2-imino-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

RN 474672-18-9 CAPLUS
CN Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[2,3-dihydro-2-imino-3-(phenylmethyl)-4-(trifluoromethyl)-1H-imidazol-1-yl]-,
mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 474672-17-8 CMF C27 H32 F3 N3 O2

CM 2

CRN 76-05-1 CMF C2 H F3 O2

CN

RN 474672-23-6 CAPLUS

1H-Imidazole-4-carboxamide, 1-[2-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-oxoethyl]-2,3-dihydro-2-imino-N,N-dimethyl-3-(phenylmethyl)-, monohydrobromide (9CI) (CA INDEX NAME)

## • HBr

RN 474672-29-2 CAPLUS

CN 1H-Imidazole-4-carboxamide, 1-[2-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-oxoethyl]-N-ethyl-2,3-dihydro-2-imino-3-(phenylmethyl)-, monohydrobromide (9CI) (CA INDEX NAME)

## • HBr

RN 474672-30-5 CAPLUS
CN Pyrrolidine, 1-[[1-[2-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-oxoethyl]-2,3-dihydro-2-imino-3-(phenylmethyl)-1H-imidazol-4-yl]carbonyl], monohydrobromide (9CI) (CA INDEX NAME)

# HBr

RN 474672-32-7 CAPLUS CN Ethanone, 1-13 5-bis

Ethanone, 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[3-(3-ethylpentyl)-2,3-dihydro-2-imino-4-methyl-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

## • HBr

RN 474672-46-3 CAPLUS
CN 2H-Imidazol-2-imine, 1-[2-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-oxoethyl]-1,3-dihydro-3-(phenylsulfonyl)-, monohydrochloride (9CI) (CA

RN

474672-49-6 CAPLUS Acetic acid, [2-(1,1-dimethylethyl)-4-[[3-(3-ethyl-2-pentenyl)-2,3-dihydro-CN 2-imino-1H-imidazol-1-yl]acetyl]-6-(1-pyrrolidinyl)phenoxy]-, monohydrobromide (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
 & O \\
 & N \\
 & C \\$$

HBr

RN 474672-50-9 CAPLUS

Pentanoic acid, 5-[2-(1,1-dimethylethyl)-4-[[3-(3-ethyl-3-methoxypentyl)-CN2,3-dihydro-2-imino-1H-imidazol-1-yl]acetyl]-6-(1-pyrrolidinyl)phenoxy]-, monohydrobromide (9CI) (CA INDEX NAME)

HO<sub>2</sub>C- (CH<sub>2</sub>) 
$$_4$$
-O

t-Bu

NH

CH<sub>2</sub>- CH<sub>2</sub>- CH<sub>2</sub>- C- Et

Et

#### • HBr

RN 474672-51-0 CAPLUS

CN Pentanoic acid, 5-[2-(1,1-dimethylethyl)-4-[[3-(3-ethyl-2-pentenyl)-2,3-dihydro-2-imino-1H-imidazol-1-yl]acetyl]-6-(1-pyrrolidinyl)phenoxy]-, monohydrobromide (9CI) (CA INDEX NAME)

HO<sub>2</sub>C- (CH<sub>2</sub>) 4-0
$$C-CH_2$$
 $N$ 
 $NH$ 
 $CH_2-CH=CEt_2$ 
 $N$ 
 $NH$ 
 $NH$ 
 $CH_2-CH=CEt_2$ 

## • HBr

RN 474672-52-1 CAPLUS

CN Ethanone, 1-[8-(1,1-dimethylethyl)-3,4-dihydro-4-methyl-2H-1,4-benzoxazin-6-yl]-2-[3-(3-ethyl-3-methoxypentyl)-2,3-dihydro-2-imino-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{OMe} & \text{NH} & \text{Me} \\ \hline \text{Et} - \text{C} - \text{CH}_2 - \text{CH}_2 & \text{N} & \text{N} - \text{CH}_2 - \text{C} \\ \hline \text{Et} & \text{N} - \text{CH}_2 - \text{C} \\ \hline \end{array}$$

#### • HBr

# IT 474672-56-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of 2-iminoimidazole derivs. as thrombin receptor antagonists, platelet aggregation inhibitors, or cell proliferation inhibitors for prevention and/or treatment of diseases)

RN 474672-56-5 CAPLUS

CN 1H-Imidazol-2-amine, 1-(3-ethylpentyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{N} & \text{NH}_2 \\ \text{N} & \text{CH}_2\text{--}\text{CH}_2\text{--}\text{CHEt}_2 \end{array}$$

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L20 ANSWER 4 OF 66 CAPLUS COPYRIGHT 2003 ACS
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AN 2002:290793 CAPLUS

DN 136:309918

TI Tricyclic farnesyl protein transferase inhibitors

IN Taveras, Arthur G.; Doll, Ronald J.; Cooper, Alan B.; Ferreira, Johan A.; Guzi, Timothy; Rane, Dinanath F.; Girijavallabhan, Viyyoor M.; Aki, Cynthia J.; Chao, Jianping; Alvarez, Carmen; Kelly, Joseph M.; Lalwani, Tarik; Desai, Jagdish A.; Wang, James J-s

PA Schering Corporation, USA

SO U.S., 215 pp. CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

			•	
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6372747 US 2002103207 PRAI US 1998-113141P US 1999-465553	B1 A1 P A3	20020416 20020801 19981218 19991216	US 1999-465553 US 2001-26999	19991216 20011220

The synthesis and testing of over 300 tricyclic farnesyl protein transferase (FPT) inhibitors was disclosed. For instance, (R)-2-carboxypiperazine.bul.di-(R)-camphorsulfonic acid (prepn. given) was neutralized and treated sequentially with BOC-ON, cyclohexyl chloroformate, TFA/CH2Cl2 and finally with the corresponding 8-chlorotricyclic deriv. and the diastereomers sepd. This intermediate was coupled to benzyl 3-(4-methylimidazolyl)propylamine (DMF, EDC, HOBt) to give I. I had FPT IC50 = 0.36 nM. Also disclosed is a method of using the disclosed compds.

279232-81-4P, 1,2-Piperazinedicarboxamide, 4-(3-bromo-8-chloro-6,11-dihydro-5H-benzo[5,6]cyclohepta[1,2-b]pyridin-11-yl)-N1-(1,1-dimethylethyl)-N2-[3-[2-[(trifluoroacetyl)amino]-1H-imidazol-1-yl]propyl]-RL: SPN (Synthetic preparation): myy (m)

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of)

RN 279232-81-4 CAPLUS

CN 1,2-Piperazinedicarboxamide, 4-(3-bromo-8-chloro-6,11-dihydro-5H-benzo[5,6]cyclohepta[1,2-b]pyridin-11-yl)-N1-(1,1-dimethylethyl)-N2-[3-[2-[(trifluoroacetyl)amino]-1H-imidazol-1-yl]propyl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

**279232-77-8P**, 1,2-Piperazinedicarboxamide, N2-[3-(2-amino-1H-ΙT imidazol-1-yl)propyl]-4-(3-bromo-8-chloro-6,11-dihydro-5Hbenzo[5,6]cyclohepta[1,2-b]pyridin-11-yl)-N1-(1,1-dimethylethyl)-, (2R)-279232-78-9P, 1,2-Piperazinedicarboxamide, N2-[3-[2-(acetylamino)-1H-imidazol-1-yl]propyl]-4-(3-bromo-8-chloro-6,11-dihydro-5Hbenzo[5,6]cyclohepta[1,2-b]pyridin-11-yl)-N1-(1,1-dimethylethyl)-, (2R)-279232-82-5P, 1,2-Piperazinedicarboxamide, 4-(3-bromo-8-chloro-6,11-dihydro-5H-benzo[5,6]cyclohepta[1,2-b]pyridin-11-yl)-N1-(1,1dimethylethyl)-N2-[3-[2-[(1-hydroxyethyl)amino]-1H-imidazol-1-yl]propyl]-, (2R) -RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(Uses)

(prepn. of tricyclic farnesyl protein transferase inhibitors)

RN 279232-77-8 CAPLUS

1,2-Piperazinedicarboxamide, N2-[3-(2-amino-1H-imidazol-1-yl)propyl]-4-(3-CN bromo-8-chloro-6,11-dihydro-5H-benzo[5,6]cyclohepta[1,2-b]pyridin-11-yl)-N1-(1,1-dimethylethyl)-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN279232-78-9 CAPLUS CN 1,2-Piperazinedicarboxamide, N2-[3-[2-(acetylamino)-1H-imidazol-1-yl]propyl]-4-(3-bromo-8-chloro-6,11-dihydro-5H-benzo[5,6]cyclohepta[1,2-b]pyridin-11-yl)-N1-(1,1-dimethylethyl)-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 279232-82-5 CAPLUS

CN 1,2-Piperazinedicarboxamide, 4-(3-bromo-8-chloro-6,11-dihydro-5H-benzo[5,6]cyclohepta[1,2-b]pyridin-11-yl)-N1-(1,1-dimethylethyl)-N2-[3-[2-[(1-hydroxyethyl)amino]-1H-imidazol-1-yl]propyl]-, (2R)- (9CI) (CA INDEX

Absolute stereochemistry.

279236-69-0P, 1,4-Piperazinedicarboxylic acid,
2-[[[3-(2-amino-1H-imidazol-1-yl)propyl]amino]carbonyl]-,
bis(1,1-dimethylethyl) ester, (2R)- 279236-70-3P,
1,4-Piperazinedicarboxylic acid, 2-[[[3-[2-[[(phenylmethoxy)carbonyl]amino]-1H-imidazol-1-yl]propyl]amino]carbonyl]-, bis(1,1-dimethylethyl) ester,
(2R)- 279236-72-5P, Carbamic acid, [1-[3-[[(2R)-2-piperazinylcarbonyl]amino]propyl]-1H-imidazol-2-yl]-, phenylmethyl ester,
bis(trifluoroacetate) 279236-73-6P, Carbamic acid,
[1-[3-[[(2R)-4-(3-bromo-8-chloro-6,11-dihydro-5H-benzo[5,6]cyclohepta[1,2-

b]pyridin-11-yl)-2-piperazinyl]carbonyl]amino]propyl]-1H-imidazol-2-yl]-, phenylmethyl ester RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of tricyclic farnesyl protein transferase inhibitors)

RN 279236-69-0 CAPLUS

1,4-Piperazinedicarboxylic acid, 2-[[[3-(2-amino-1H-imidazol-1-CN yl)propyl]amino]carbonyl]-, bis(1,1-dimethylethyl) ester, (2R)- (9CI) (CA

Absolute stereochemistry.

279236-70-3 CAPLUS RN

1,4-Piperazinedicarboxylic acid, 2-[[[3-[2-[[(phenylmethoxy)carbonyl]amino CN ]-1H-imidazol-1-yl]propyl]amino]carbonyl]-, bis(1,1-dimethylethyl) ester, (2R) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 279236-72-5 CAPLUS

Carbamic acid, [1-[3-[[(2R)-2-piperazinylcarbonyl]amino]propyl]-1H-CN imidazol-2-yl]-, phenylmethyl ester, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 279236-71-4 CMF C19 H26 N6 O3

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 279236-73-6 CAPLUS

CN Carbamic acid, [1-[3-[[[(2R)-4-(3-bromo-8-chloro-6,11-dihydro-5H-benzo[5,6]cyclohepta[1,2-b]pyridin-11-yl)-2-piperazinyl]carbonyl]amino]propyl]-1H-imidazol-2-yl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

279232-79-0P, 1-Piperazinecarboxylic acid, 2-[[[3-(2-amino-1H-imidazol-1-yl)propyl]amino]carbonyl]-4-(3-bromo-8-chloro-6,11-dihydro-5H-benzo[5,6]cyclohepta[1,2-b]pyridin-11-yl)-, 1,1-dimethylethyl ester, (2R)-RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of tricyclic farnesyl protein transferase inhibitors) RN

279232-79-0 CAPLUS CN

1-Piperazinecarboxylic acid, 2-[[[3-(2-amino-1H-imidazol-1-yl)propyl]amino]carbonyl]-4-(3-bromo-8-chloro-6,11-dihydro-5Hbenzo[5,6]cyclohepta[1,2-b]pyridin-11-yl)-, 1,1-dimethylethyl ester, (2R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 15 ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 5 OF 66 CAPLUS COPYRIGHT 2003 ACS

AN 2002:116969 CAPLUS

DN 137:134464

Synthesis and biological evaluation of imidazol-2-one and ΤI 2-cyanoiminoimidazole derivatives: novel series of PDE4 inhibitors

Andres, J. Ignacio; Alonso, Jose M.; Diaz, Adolfo; Fernandez, Javier; . AU Iturrino, Laura; Martinez, Pedro; Matesanz, Encarna; Freyne, Eddy J.; Deroose, Frederik; Boeckx, Gustaaf; Petit, Davy; Diels, Gaston; Megens, Anton; Somers, Marijke; Van Wauwe, Jean; Stoppie, Paul; Cools, Marina; De Clerck, Fred; Peeters, Danielle; de Chaffoy, Didier

Basic Research Centre, Janssen-Cilag, Toledo, 45007, Spain CS

Bioorganic & Medicinal Chemistry Letters (2002), 12(4), 653-658 SO CODEN: BMCLE8; ISSN: 0960-894X

PΒ Elsevier Science Ltd.

DTJournal

LΑ English

CASREACT 137:134464 OS

This communication describes the synthesis and in vitro PDE4 AB (phosphodiesterase 4) inhibitory activity of a novel series of imidazol-2-one and 2-cyanoiminoimidazole derivs. The compds. described were also tested in in vivo models to evaluate their anti-inflammatory activity after topical administration as well as their gastro-intestinal side effects. Several compds. proved to be potent PDE4 inhibitors and some 2-cyanoiminoimidazoles showed less pronounced gastro-intestinal side effects than ref. compds. but maintained anti-inflammatory activity after topical administration.

205699-39-4P 205699-42-9P 205699-43-0P 205699-44-1P 205699-45-2P 205699-46-3P 205699-47-4P 205699-50-9P 444797-34-6P 444797-35-7P

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of imidazolone and 2-cyanoiminoimidazole derivs. as phosphodiesterase 4 inhibitors in relation to structure and antiinflammatory activity and gastrointestinal side effects and binding to rolipram receptors)

RN205699-39-4 CAPLUS

Cyanamide, [1-[2-[3-(cyclopentyloxy)-4-methoxyphenyl]propyl]-1H-imidazol-2-CN yl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Me} \\ \text{NH-CN} \\ \text{CH-CH}_2 - \text{NN} \\ \text{MeO} \end{array}$$

205699-42-9 CAPLUS RN

Cyanamide, [1-[2-[3-(cyclopropylmethoxy)-4-(difluoromethoxy)phenyl]propyl]-CN 1H-imidazol-2-yl]- (9CI) (CA INDEX NAME)

F2CH-0

205699-43-0 CAPLUS RN

Cyanamide, [1-[2-[3-[(2,3-dihydro-1H-inden-2-y1)oxy]-4methoxyphenyl]propyl]-1H-imidazol-2-yl]- (9CI) (CA INDEX NAME)

RN 205699-44-1 CAPLUS

Cyanamide, [1-[2-[3-(cyclopropylmethoxy)-4-methoxyphenyl]propyl]-1H-CN imidazol-2-yl]- (9CI) (CA INDEX NAME)

RN205699-45-2 CAPLUS

Cyanamide, [1-[2-[4-methoxy-3-[(5-phenylpentyl)oxy]phenyl]propyl]-1H-CN imidazol-2-yl]- (9CI) (CA INDEX NAME)

RN 205699-46-3 CAPLUS

CN Cyanamide, [1-[2-[4-methoxy-3-[(tetrahydro-3-furanyl)oxy]phenyl]propyl]-1H-imidazol-2-yl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Me} \\ \text{CH-CH}_2 \\ \text{MeO} \end{array}$$

RN 205699-47-4 CAPLUS

CN Cyanamide, [1-[2-[4-(difluoromethoxy)-3-[(5-phenylpentyl)oxy]phenyl]propyl ]-lH-imidazol-2-yl]- (9CI) (CA INDEX NAME)

RN 205699-50-9 CAPLUS

CN Cyanamide, [1-[2-[3-[2-(2,3-dihydro-1H-inden-2-yl)ethoxy]-4-methoxyphenyl]propyl]-1H-imidazol-2-yl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{MeO} & \text{Me} \\ \hline \\ \text{CH}_2\text{-}\text{CH}_2\text{-}\text{O} & \text{CH}\text{-}\text{CH}_2\text{-}\text{N} \\ \hline \end{array}$$

RN 444797-34-6 CAPLUS

CN Cyanamide, [1-[(2R)-2-[3-[(2,3-dihydro-1H-inden-2-yl)oxy]-4-methoxyphenyl]propyl]-1H-imidazol-2-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444797-35-7 CAPLUS

CN Cyanamide, [1-[(2S)-2-[3-[(2,3-dihydro-1H-inden-2-yl)oxy]-4-methoxyphenyl]propyl]-1H-imidazol-2-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ANSWER 6 OF 66 CAPLUS COPYRIGHT 2003 ACS
  AN
       2001:791905 CAPLUS
  DN
       135:331418
  TI
       Preparation of thiazoles as agonists or modulators of nicotinic
       acetylcholine .alpha.4.beta.2 receptor
       Imoto, Masahiro; Iwanami, Tatsuya; Akabane, Minako; Tani, Yoshihiro
  IN
  PA
       Suntory, Ltd., Japan
  SO
       Jpn. Kokai Tokkyo Koho, 19 pp.
       CODEN: JKXXAF
  DT
       Patent
  LΑ
       Japanese
                                                                            plicant 3
  FAN.CNT 1
       PATENT NO.
                        KIND
                             DATE
                                                              DATE
       JP 2001302635
 PT
                        A2
                              20011031
                                             JP 2000-120975
                                                              20000421
      WO 2001081326
                        A1
                              20011101
                                             WO 2001-JP3377
                                                              20010420
          W: AU, CA, CN, KR, US
          RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
              PT, SE, TR
      EP 1185521
                        A1
                             20020313
                                             EP 2001-921931
                                                              20010420
              AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI, RO
 PRAI JP 2000-120975
                        A 20000421
      WO 2001-JP3377
                             20010420
 OS
      MARPAT 135:331418
      Title compds. I [A = (un) substituted alkyl, aryl, heterocyclyl; B1, B2 =
      H, alkyl, OH; CB1B2 may form carbonyl; X = O, S, C, N; dotted line
      represents optional bond; n = 1-2; if X = 0, then YX = CH2CH2O, (CH2)30;
      if X = S, then YX = CH2CH2S, CR1:CR2S; if X = C, then YX = (CH2)3,
      (CH2)4, CH:CR3CR4:CH, N:CR5CR6:CH; if X = N, then YX = CH2CH2NH, (CH2)3N,
      CR7:CR8N:, CR9:CR10CR11:N; R1-R11 = H, halo, (un)substituted alkyl, aryl,
     heterocyclyl] or their pharmaceutically acceptable salts, useful for
      treatment of Alzheimer's disease, Parkinson's disease, cerebrovascular
     dementia, Tourette syndrome, neurosis, anxiety, and schizophrenia and are
     prepd. 2-Amino-5-methyl-2-thiazoline was reacted with
     5-(2-bromoethyl)-2-chloropyridine in acetonitrile at 90.degree. for 14 h
     to give 61.2% 3-[2-(6-chloro-3-pyridyl)ethyl]-2-imino-5-methyl-2,3-
     dihydrothiazole, which was reacted with fumaric acid to give a salts
     showing good affinity to acetylcholine .alpha.4.beta.2 receptor.
ΙT
     369609-24-5P 369609-32-5P 369609-37-0P
     369609-40-5P 369609-45-0P 369609-47-2P
     369609-50-7P 369609-52-9P 369609-55-2P
     369609-57-4P 369609-58-5P 369609-60-9P
     369609-64-3P 369609-67-6P 369609-68-7P
     369609-69-8P 369609-70-1P 369609-71-2P
     369609-73-4P 369609-85-8P 369609-91-6P
     369609-94-9P 369609-95-0P 369610-00-4P
     369610-04-8P 369610+05-9P 369610-06-0P
     369610-08-2P 369610-11-7P 369610-12-8P
     369610-14-0P 369610-17-3P 369610-18-4P
     369610-20-8P 369610-21-9P 369610-22-0P
     369610-24-2P 369610-26-4P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of thiazoles as agonists or modulators of nicotinic
       acetylcholine .alpha.4.beta.2 receptor)
RN
     369609-24-5 CAPLUS
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CN 1H-Imidazol-2-amine, 1-[2-(6-chloro-3-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)

RN 369609-32-5 CAPLUS

CN 1H-Imidazol-2-amine, 1-[2-(6-methyl-3-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)

RN 369609-37-0 CAPLUS

CN 1H-Imidazol-2-amine, 1-[2-(5,6-dichloro-3-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)

RN 369609-40-5 CAPLUS

CN 1H-Imidazol-2-amine, 1-[2-(3-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)

RN 369609-45-0 CAPLUS

CN 1H-Imidazol-2-amine, 1-[2-(4-chlorophenyl)ethyl]- (9CI) (CA INDEX NAME)

RN 369609-47-2 CAPLUS

CN 1H-Imidazol-2-amine, 1-[2-(2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)

RN 369609-50-7 CAPLUS

CN 1H-Imidazol-2-amine, 1-[2-(4-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)

RN 369609-52-9 CAPLUS

CN 1H-Imidazol-2-amine, 1-[2-(6-chloro-3-pyridinyl)ethyl]-4,5-dimethyl- (9CI) (CA INDEX NAME)

RN 369609-55-2 CAPLUS

CN 1H-Imidazol-2-amine, 1-[2-(2-chloro-5-thiazolyl)ethyl]- (9CI) (CA INDEX NAME)

RN 369609-57-4 CAPLUS CN 1H-Imidazol-2-amine, 1-[2-(5-bromo-3-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)

RN 369609-58-5 CAPLUS CN Phenol, 4-[2-(2-amino-1H-imidazol-1-yl)ethyl]- (9CI) (CA INDEX NAME)

RN 369609-60-9 CAPLUS CN 1H-Imidazol-2-amine, 1-[2-(5-methyl-3-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)

RN 369609-64-3 CAPLUS

CN 1H-Imidazol-2-amine, 1-[2-(5-pyrimidinyl)ethyl]- (9CI) (CA INDEX NAME)

RN 369609-67-6 CAPLUS

CN 1H-Imidazol-2-amine, 1-[2-(3-pyridazinyl)ethyl]- (9CI) (CA INDEX NAME)

RN 369609-68-7 CAPLUS

CN 1H-Imidazol-2-amine, 1-(2-pyrazinylethyl)- (9CI) (CA INDEX NAME)

RN 369609-69-8 CAPLUS

CN · Phenol, 4-[[2-[2-(2-amino-1H-imidazol-1-yl)ethyl]phenyl]thio]- (9CI) (CA INDEX NAME)

RN 369609-70-1 CAPLUS CN 1H-Imidazol-2-amine, 1-[2-[2-[(4-methoxyphenyl)thio]phenyl]ethyl]- (9CI) (CA INDEX NAME)

RN 369609-71-2 CAPLUS CN 1H-Imidazol-2-amine, 1-[2-(4-pyridazinyl)ethyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{NH}_2 \\ & \text{N} & \text{CH}_2 - \text{CH}_2 \\ & & \text{N} \end{array}$$

RN 369609-73-4 CAPLUS CN 1H-Imidazol-2-amine, 1-[2-(4-chloro-5-pyrimidinyl)ethyl]- (9CI) (CA INDEX NAME)

RN 369609-85-8 CAPLUS
CN 1H-Imidazol-2-amine, 1-[2-(6-chloro-3-pyridinyl)ethyl]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 369609-24-5
CMF C10 H11 C1 N4

CM . 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 369609-91-6 CAPLUS
CN 1H-Imidazol-2-amine, 1-[2-(6-methyl-3-pyridinyl)ethyl]-,
(2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 369609-32-5 CMF C11 H14 N4

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 369609-94-9 CAPLUS CN 1H-Imidazol-2-amine

1H-Imidazol-2-amine, 1-[2-(5,6-dichloro-3-pyridinyl)ethyl]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 369609-37-0 CMF C10 H10 C12 N4

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 369609-95-0 CAPLUS

CN 1H-Imidazol-2-amine, 1-[2-(3-pyridinyl)ethyl]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 369609-40-5 CMF C10 H12 N4

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

$$_{\text{HO}_2\text{C}}$$
  $^{\text{E}}$   $_{\text{CO}_2\text{H}}$ 

RN 369610-00-4 CAPLUS

CN 1H-Imidazol-2-amine, 1-[2-(4-chlorophenyl)ethyl]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 369609-45-0 CMF C11 H12 C1 N3

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 369610-04-8 CAPLUS CN

1H-Imidazol-2-amine, 1-[2-(2-pyridinyl)ethyl]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 369609-47-2 CMF C10 H12 N4

CM2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 369610-05-9 CAPLUS

CN 1H-Imidazol-2-amine, 1-[2-(4-pyridinyl)ethyl]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 369609-50-7 CMF C10 H12 N4

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 369610-06-0 CAPLUS

CN 1H-Imidazol-2-amine, 1-[2-(6-chloro-3-pyridinyl)ethyl]-4,5-dimethyl-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 369609-52-9 CMF C12 H15 C1 N4

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 369610-08-2 CAPLUS

CN 1H-Imidazol-2-amine, 1-[2-(2-chloro-5-thiazolyl)ethyl]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 369609-55-2 CMF C8 H9 Cl N4 S

- CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.

RN 369610-11-7 CAPLUS
CN 1H-Imidazol-2-amine 1-12-15

1H-Imidazol-2-amine, 1-[2-(5-bromo-3-pyridinyl)ethyl]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 369609-57-4 CMF C10 H11 Br N4

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 369610-12-8 CAPLUS

CN Phenol, 4-[2-(2-amino-1H-imidazol-1-yl)ethyl]-, (2E)-2-butenedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 369609-58-5 CMF C11 H13 N3 O

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN369610-14-0 CAPLUS CN

1H-Imidazol-2-amine, 1-[2-(5-methyl-3-pyridinyl)ethyl]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 369609-60-9 CMF C11 H14 N4

CM

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 369610-17-3 CAPLUS

CN 1H-Imidazol-2-amine, 1-[2-(5-pyrimidinyl)ethyl]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 369609-64-3 CMF C9 H11 N5

$$NH_2$$
 $N \longrightarrow CH_2 - CH_2 \longrightarrow N$ 

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 369610-18-4 CAPLUS

CN 1H-Imidazol-2-amine, 1-[2-(3-pyridazinyl)ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HC1

RN 369610-20-8 CAPLUS CN 1H-Imidazol-2-amine, 1-(2-pyrazinylethyl)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CRN 369609-68-7 CMF C9 H11 N5

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 369610-21-9 CAPLUS

CN Phenol, 4-[[2-[2-(2-amino-1H-imidazol-1-yl)ethyl]phenyl]thio]-, (2E)-2-butenedioate (2:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 369609-69-8 CMF C17 H17 N3 O S

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

$$_{\text{HO}_2\text{C}}$$
  $^{\text{E}}$   $_{\text{CO}_2\text{H}}$ 

RN 369610-22-0 CAPLUS

CN 1H-Imidazol-2-amine, 1-[2-[2-[(4-methoxyphenyl)thio]phenyl]ethyl]-, (2E)-2-butenedioate (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 369609-70-1 CMF C18 H19 N3 O S

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 369610-24-2 CAPLUS

CN 1H-Imidazol-2-amine, 1-[2-(4-pyridazinyl)ethyl]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 369609-71-2 CMF C9 H11 N5

$$NH_2$$
 $N-CH_2-CH_2$ 
 $N$ 

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 369610-26-4 CAPLUS

CN 1H-Imidazol-2-amine, 1-[2-(4-chloro-5-pyrimidinyl)ethyl]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 369609-73-4 CMF C9 H10 C1 N5

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

```
ANSWER 7 OF 66 CAPLUS COPYRIGHT 2003 ACS
       2001:780862 CAPLUS
  ΑN
  DN
       135:331423
       Preparation of 5-substituted tetralones as inhibitors of ras farnesyl
  ΤI
       transferase for treatment of proliferative diseases
       Denny, William Alexander; Hutchings, Richard H.; Johnson, Douglas S.;
 IN
       Kaltenbronn, James Stanley; Lee, Ho Huat; Leonard, Daniele Marie; Milbank,
       Jared Bruce John; Repine, Joseph Thomas; Rewcastle, Gordon William; White,
       Andrew David
 PA
       Warner-Lambert Co., USA
 SO
       PCT Int. Appl., 358 pp.
       CODEN: PIXXD2
 DT
       Patent
 LA
       English
 FAN.CNT 1
       PATENT NO.
                         KIND
                                DATE
                                                APPLICATION NO.
                                                                   DATE
                                                -----
 PΙ
      WO 2001079180
                          A2
                                20011025

    WO 2001-US12490

                                                                   20010416
      WO 2001079180
                          А3
                                20020523
               AE, AG, AL, AM, AT, AV, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
               CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
               LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
               RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
      BR 2001010142
                               20030121
                          Α
                                               BR 2001-10142
                                                                  20010416
      EP 1276725
                          A2
                                20030122
                                                EP 2001-927121
              AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
                                                                   20010416
               IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRAI US 2000-197485P
                         Ρ.
                               20000417
      WO 2001-US12490
                               20010416
os
      MARPAT 135:331423
      Title compds. I [wherein W = CH2 or CH2CH2; R3 = H, alkyl, or
      (un) substituted Ph; R3a = H or alkyl; provided that R3 and R3a cannot both
     be H and that when R3 = (un) substituted Ph, then R3a = H; X = halo, NH2,
     alkyl, alkenyl, heteroaryl, CH2OR6, CH2NR6R6a, CH2SR6, CH2CH2CO2R6, or
      (un) substituted aryl, or (hetero) arylalkyl; R6 = H, (cyclo) alkyl, alkenyl,
     benzyl, or (un) substituted Ph; R6a = H or alkyl; Y = O or S; R5 = H,
     alkyl, or NH2; and pharmaceutically acceptable salts, esters, amides, and
     prodrugs thereof] were prepd. and formulated as farnesyl transferase
     enzyme inhibitors. For example, coupling of 5-chloromethyl-6-hydroxy-
     2,3,4-trihydronaphthalen-1-one with thiophenol using diisopropylamine in
     THF (58\%), followed by addn. of (R)-2-imidazol-1-yl-1-phenylethanol in the
     presence of PPh3 and di-Et azodicarboxylate in THF (31%), gave II. The
     latter inhibited farmesyl protein transferase (FPT) with IC50 of 0.3 mM.
     I are useful for treating and preventing uncontrolled or abnormal
     proliferation of tissues, such as cancer, atherosclerosis, restenosis, and
     psoriasis (no data).
IT
     368882-96-6P, 6-[2-(2-Aminoimidazol-1-yl)-1-phenylethoxy]-5-
     phenethyl-3,4-dihydro-2H-naphthalen-1-one
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of 5-substituted tetralones as Ras farnesyl transferase
        inhibitors for treatment of proliferative diseases, such as cancer,
```

atherosclerosis, restenosis, and psoriasis)

RN 368882-96-6 CAPLUS CN

1(2H)-Naphthalenone, 6-[2-(2-amino-1H-imidazol-1-yl)-1-phenylethoxy]-3,4-dihydro-5-(2-phenylethyl)- (9CI) (CA INDEX NAME)

```
ANSWER 8 OF 66 CAPLUS COPYRIGHT 2003 ACS
      2001:115160 CAPLUS
 ΑN
 DN
      134:163283
      Preparation of erythromycin A derivatives as antibacterial agents
 ΤI
      Asaka, Toshifumi; Kashimura, Masato; Manaka, Akira; Tanikawa, Tetsuya;
 IN
      Sugimoto, Tomohiro
 PA
      Taisho Pharmaceutical Co., Ltd., Japan
 SO
      PCT Int. Appl., 49 pp.
      CODEN: PIXXD2
 DT
      Patent
 LΑ
      Japanese
 FAN.CNT 1
      PATENT NO.
                       KIND DATE
                                            APPLICATION NO.
 ΡI
      WO 2001010878
                        A1
                             20010215
                                            WO 2000-JP5144 · 20000731
          W: AU, CA, CN, JP, KR, US
          RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
              PT, SE
 PRAI JP 1999-223554
                             19990806
     MARPAT 134:163283
     Novel erythromycin derivs. of general formula (I; A = C2-6 alkyl, alkenyl,
 AB
     or alkynyl; R1 = H, C1-3 alkyl; R2 = pyridyl, pyrimidyl, pyrazyl,
     imidazol-4-yl, or pyrrol-2-yl, NR3R4; wherein R3, R4 = H, Me,
     benzyloxycarbonyl, methanesulfonyl; or NR3R4 = imidazol-1-yl,
     tetrazol-1-yl, 2-pyridon-1-yl, 4-pyridon-1-yl; X1 = N, C; X2, X3, X4, X5 =
     s, N, O, CR5, NR6; R5 = H, OH, hydroxymethyl, CHO, NO2, C1-3 alkyl, C3-6
     cycloalkyl, C1-3 alkoxycarbonyl, halo, NH2, hydroxyamino, CONH2,
     aminoethyl, acetamidoethyl, cyano, cyanomethyl, etc.; R6 = H, C1-3 alkyl,
     dimethylaminosulfonyl) or medically acceptable salts thereof, which are
     characterized by an acyl group introduced at the 3-position, a cyclic
     carbamate structure fused at the 11- and 12-positions, and a five-membered
     heterocycle on the 11-position substituent, one of the nitrogen atoms of
     which is bonded to the 11-position nitrogen atom through an alkyl group,
     and have potent antimicrobial effects on erythromycin-resistant bacteria
     and Haemophilus influenzae, are prepd. Thus, 10,11-anhydro-2'-O-acetyl-12-
     O-imidazolylcarbonyl-3-0-(2-pyridyl)acetyl-5-0-desosaminyl-6-0-
     methylerythrolide A 500, 4-(1H-imidazol-1-yl)butylamine (prepn. given)
     421, 1,1,3,3-tetramethylguanidine 70 mg were dissolved in 5 mL MeCN and
     stirred at room temp. for 12 h to give 11-deoxy-11-[4-(1H-imidazol-1-
     yl)butyl]amino-5-0-desosaminyl-3-0-(2-pyridyl)acetyl-6-0-methylerythrolide
     A 11,12-cyclic carbamate (II). II showed min. inhibitory concn. of 0.39,
     0.39, and 1.56 .mu.g/mL against Staphylococcus aureus B1, Streptococcus
     pneumoniae 210, and S. pneumoniae 205, resp., vs. >100, 0.78, and >100
     .mu.g/mL, resp., for clarithromycin.
ΙT
     325491-40-5P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of erythromycin A derivs. as antibacterial agents)
     325491-40-5 CAPLUS
RN
     2-Pyridineacetic acid, (3aS, 4R, 7R, 8S, 9S, 10R, 11R, 13R, 15R, 15aR) - 1 - [4 - (2 - 1)]
CN
    amino-1H-imidazol-1-yl)butyl]-4-ethyltetradecahydro-11-methoxy-
     3a,7,9,11,13,15-hexamethyl-2,6,14-trioxo-10-[[3,4,6-trideoxy-3-
     (dimethylamino)-.beta.-D-xylo-hexopyranosyl]oxy]-2H-
    oxacyclotetradecino[4,3-d]oxazol-8-yl ester (9CI) (CA INDEX NAME)
```

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 9 OF 66 CAPLUS COPYRIGHT 2003 ACS
  L20
  AN
       2000:441786 CAPLUS
  DN
       133:74012
  TI
      Tricyclic farnesyl protein transferase inhibitors
      Taveras, Arthur G.; Doll, Ronald J.; Cooper, Alan B.; Ferreira, Johan A.;
  IN
      Guzi, Timothy; Mallams, Alan K.; Rane, Dinanath F.; Girijavallabhan,
      Viyyoor M.; Afonso, Adriano; Aki, Cynthia J.; Chao, Jianping; Alvarez,
      Carmen; Kelly, Joseph M.; Lalwani, Tarik; Desai, Jagdish A.; Wang, James
       J. S.; Weinstein, Jay
 PA
      Schering Corporation, USA
 SO
      PCT Int. Appl., 387 pp.
      CODEN: PIXXD2
                                                               Same as #4.
 DT
      Patent
 LΑ
      English
 FAN.CNT 1
      PATENT NO.
                        KIND
                              DATE
                                             APPLICATION NO.
                                                               DATE
      WO 2000037459
                        A1
                              20000629
                                             WO 1999-US27939 19991216
              AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CZ,
              DE, DK, DM, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP,
              KG, KR, KZ, LC, LK, LR, LT, LU, LV, MA, MD, MG, MK, MN, MX, NO,
              NZ, PL, PT, RO, RU, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA,
              UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
          RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
              DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
      BR 9916314
                        Α
                             20011002
                                            BR 1999-16314
                                                              19991216
      EP 1140902
                        A1
                             20011010
                                             EP 1999-963980
                                                              19991216
          R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI, RO
      JP 2002533336
                             20021008
                        T2
                                             JP 2000-589531
                                                              19991216
      NO 2001002961
                        Α
                             20010816
                                            NO 2001-2961
                                                              20010615
 PRAI US 1998-216398
                        Α
                             19981218
      WO 1999-US27939
                             19991216
os
     MARPAT 133:74012
     Title compds. [I; R13 represents an imidazole ring; R14 represents a
     carbamate, urea, amide or sulfonamide group; R8 represents H when the
     alkyl chain between the amide group and the R13 imidazole group is
     substituted, or R8 represents a substituent such as arylalkyl,
     heteroarylalkyl or cycloalkyl; wherein R8 is H, and the alkyl chain
     between the amide group and the R13 imidazole group is unsubstituted; R12
     = H, CH3; R11 = H, CH3, 4-ClC6H4, (CH3)2CH, (CH3)2CHCH2, CH3(CH2)3,
     C6H5CH2, CH3CH2; R11-R12 = (CH2)2; X = N, CH; Y = N, N:O; R1 = H, Br; R2 =
     H, CONH2, OH, C6H5CH2; R = H, OH; R3 = H, C6H5; n = 0-5], pharmaceutically
     acceptable salts, solvate, and stereoisomers are prepd. as farnesyl
     protein transferase (FPT) inhibitors which are useful in the manuf. of
     medicament for treating pancreatic tumor, lung cancer, myeloid leukemia
     tumor, thyroid follicular tumor, myelodysplastic tumor, epidermal
     carcinoma tumor, bladder carcinoma tumor, colon tumor, melanoma, breast
     tumor, and prostate tumor. Thus, the title compd: II was prepd. and
     tested. Also disclosed is a method of treating cancer and a method of
     inhibiting farnesyl protein transferase using the disclosed compds.
IT
     279232-81-4P
     RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
     study); PREP (Preparation); USES (Uses)
        (prepn. of)
     279232-81-4 CAPLUS
RN
     1,2-Piperazinedicarboxamide, 4-(3-bromo-8-chloro-6,11-dihydro-5H-
CN
```

[(trifluoroacetyl)amino]-lH-imidazol-1-yl]propyl]-, (2R)- (9CI) NAME)

Absolute stereochemistry.

279232-77-8P 279232-78-9P 279232-82-5P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of tricyclic farnesyl protein transferase inhibitors)

279232-77-8 CAPLUS RN

1,2-Piperazinedicarboxamide, N2-[3-(2-amino-1H-imidazol-1-yl)propyl]-4-(3-CN bromo-8-chloro-6,11-dihydro-5H-benzo[5,6]cyclohepta[1,2-b]pyridin-11-y1)-N1-(1,1-dimethylethyl)-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 279232-78-9 CAPLUS

1,2-Piperazinedicarboxamide, N2-[3-[2-(acetylamino)-1H-imidazol-1-CN yl]propyl]-4-(3-bromo-8-chloro-6,11-dihydro-5H-benzo[5,6]cyclohepta[1,2b]pyridin-11-yl)-N1-(1,1-dimethylethyl)-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN. 279232-82-5 CAPLUS

1,2-Piperazinedicarboxamide, 4-(3-bromo-8-chloro-6,11-dihydro-5H-CN benzo[5,6]cyclohepta[1,2-b]pyridin-11-yl)-N1-(1,1-dimethylethyl)-N2-[3-[2-[(1-hydroxyethyl)amino]-1H-imidazol-1-yl]propyl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

ΙT 279236-69-0P 279236-70-3P 279236-72-5P

279236-73-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of tricyclic farnesyl protein transferase inhibitors)

RN 279236-69-0 CAPLUS

CN 1,4-Piperazinedicarboxylic acid, 2-[[[3-(2-amino-1H-imidazol-1yl)propyl]amino]carbonyl]-, bis(1,1-dimethylethyl) ester, (2R)- (9CI) INDEX NAME)

Absolute stereochemistry:

RN 279236-70-3 CAPLUS

CN 1,4-Piperazinedicarboxylic acid, 2-[[[3-[2-[[(phenylmethoxy)carbonyl]amino]-1H-imidazol-1-yl]propyl]amino]carbonyl]-, bis(1,1-dimethylethyl) ester, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 279236-72-5 CAPLUS

CN Carbamic acid, [1-[3-[[(2R)-2-piperazinylcarbonyl]amino]propyl]-1H-imidazol-2-yl]-, phenylmethyl ester, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 279236-71-4 CMF C19 H26 N6 O3

Absolute stereochemistry.

76-05-1 CRN CMF C2 H F3 O2

RN279236-73-6 CAPLUS

Carbamic acid, [1-[3-[[[(2R)-4-(3-bromo-8-chloro-6,11-dihydro-5H-CN benzo[5,6]cyclohepta[1,2-b]pyridin-11-yl)-2-piperazinyl]carbonyl]amino]pro pyl]-1H-imidazol-2-yl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 279232-79-0P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of tricyclic farnesyl protein transferase inhibitors)

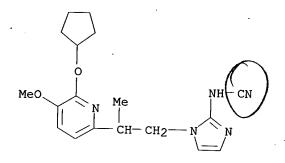
RN 279232-79-0 CAPLUS

1-Piperazinecarboxylic acid, 2-[[[3-(2-amino-1H-imidazol-1-CN yl)propyl]amino]carbonyl]-4-(3-bromo-8-chloro-6,11-dihydro-5Hbenzo[5,6]cyclohepta[1,2-b]pyridin-11-yl)-, 1,1-dimethylethyl ester, (2R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 10 OF 66 CAPLUS COPYRIGHT 2003 ACS
  L20
  AN
       1999:640852 CAPLUS
  DN
       131:257564
       Preparation of 1-pyridylalkyl-2-oxo-4-imidazolines and analogs as cytokine
  ΤI
       and PDE-IV inhibitors
       Freyne, Eddy Jean Edgard; Diels, Gaston Stanislas Marcella;
  IN
      Matesanz-Ballesteros, Maria Encarnacion; Diaz-Martinez, Adolfo
  PA
       Janssen Pharmaceutica N.V., Belg.
 SO
       PCT Int. Appl., 33 pp.
       CODEN: PIXXD2
 DT
       Patent
      English
 LΑ
 FAN.CNT 1
      PATENT NO.
                       KIND
                             DATE
                                             APPLICATION NO.
                                                              DATE
                              _____
 PΙ
      WO 9950262
                        A1
                              19991007
                                             WO 1999-EP2045
                                                              19990324
              AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
              DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
              JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
              MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
              TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,
              MD, RU, TJ, TM
          RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
              ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
              CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
      CA 2326045
                        AΑ
                             19991007
                                            CA 1999-2326045
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                        A1
                             19991018
                                            AU 1999-31474
                                                              19990324
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                             20001212
                        Α
                                            BR 1999-9326
                                                              19990324
      EP 1068194
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                                            EP 1999-913302
                                                              19990324
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              SI, LT, LV, FI, RO
      JP 2002509927
                        T2
                             20020402
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      EE 200000569
                        Α
                             20020415
                                            EE 2000-569
                                                              19990324
      NZ 507022
                        Α
                             20020628
                                            NZ 1999-507022 .
                                                              19990324
      BG 104718
                        Α
                             20010430
                                            BG 2000-104718
                                                              20000828
     NO 2000004906
                       Α
                             20001128
                                            NO 2000-4906
                                                             20000929
PRAI EP 1998-201020
                       Α
                             19980401
     WO 1999-EP2045
                        W
                             19990324
os
     MARPAT 131:257564
     Title compds. [I; R = H, alk(en)yl, piperidyl, alkylsulfonyl, etc.;
AB
     R1,R4,R5 = H or alkyl; R2 = H, halo, alkoxy(carbonyl), aryl, etc.; R1R2 =
     (CH2)1-4; R3 = H, halo, OH, alkyl(oxy); R6 = 5, 6-dihydroxy- or
     -dialkoxy-2-pyridyl, etc.; dashed line = optional bond] were prepd. as
     cytokine (no data) and PDE-IV inhibitors. Thus, 6-(2-amino-1-methylethyl)-
     4-cyclopentyloxy-3-pyridinol was amidated by ClCO2Ph and the product
     amidated by (MeO) 2CHCH2NH2 to give, after cyclization, I (R = R1 = R2 = R4
     = R5 = H, R3 = Me, R6 = 4-cyclopentyloxy-5-hydroxy-2-pyridyl). Data for
     PDE-IV inhibition of I were given.
IT
     244629-27-4P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of 1-pyridylalkyl-2-oxo-4-imidazolines and analogs as cytokine
        and PDE-IV inhibitors)
     244629-27-4 CAPLUS
RN
     Cyanamide, [1-[2-[6-(cyclopentyloxy)-5-methoxy-2-pyridinyl]propyl]-1H-
CN
     imidazol-2-yl]- (9CI) (CA INDEX NAME)
```





RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 11 OF 66 CAPLUS COPYRIGHT 2003 ACS T.20

AN 1999:1967 CAPLUS

DN 130:139605

S-2-amino-5-azolylpentanoic acids related to L-ornithine as inhibitors of TI the isoforms of nitric oxide synthase (NOS) ΑU

Ulhaq, Saraj; Chinje, Edwin C.; Naylor, Matthew A.; Jaffar, Mohammed; Stratford, Ian J.; Threadgill, Michael D.

Department of Pharmacy & Pharmacology, University of Bath, Bath, BA2 7AY, CS Same on #19

Bioorganic & Medicinal Chemistry (1998), 6(11), 2139-2149 SO CODEN: BMECEP; ISSN: 0968-0896

PΒ Elsevier Science Ltd.

DΤ Journal

LA English

Amino(imidazolyl)pentanoic acids I (R = NO2, NH2) have been used as weakly AΒ inhibitory lead compds. in the design of 2-amino-5-azolylpentanoic acids which are more potent in their inhibition of nitric oxide synthases. Treatment of 2-(Boc-amino)-5-bromopentanoic acid t-Bu ester with appropriate imidazoles and 1,2,4-triazoles and with tetrazole under basic conditions, followed by acidolytic deprotection, gave many of the required 2-amino-5-azolylpentanoic acids. Tetrazole was alkylated at N-1 and at N-2 in approx. equal amts. whereas the 1,2,4-triazoles reacted principally at N-1. A nitrile was introduced at the 2-position of the imidazole by reaction of the 2-unsubstituted precursor with 1-cyano-4dimethylaminopyridine. Of this series of compds., 2-amino-5-(imidazol-1yl) pentanoic acid (I; R = H) was identified as the most potent member against rat iNOS, rat nNOS and a human-derived cNOS. Examn. of the structure-activity relationships for the identity and substitution of the azoles has led to the proposal of a model for the binding of the inhibitors to the binding site for the natural substrate.

177906-16-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(prepn. of amino(azolyl)pentanoic acids as inhibitors of nitric oxide synthase isoforms)

RN 177906-16-0 CAPLUS

1H-Imidazole-1-pentanoic acid, .alpha.,2-diamino-, (.alpha.S)- (9CI) CN INDEX NAME)

Absolute stereochemistry.

RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 12 OF 66 CAPLUS COPYRIGHT 2003 ACS
      1998:745087 CAPLUS
 AN
 DN
      130:4092
 ΤI
      Analgesic peptidomimetic compounds
 IN
      Dimaio, John; Wang, Wuyi
 PA
      Astra Aktiebolag (Publ), Swed.
 SO
      PCT Int. Appl., 87 pp.
      CODEN: PIXXD2
 DΤ
      Patent
 LA
      English
 FAN.CNT 1
      PATENT NO.
                        KIND
                               DATE
                                               APPLICATION NO.
                                                                 DATE
 PT
      WO 9850421
                         A1
                               19981112
                                               WO 1998-SE826
                                                                  19980505
              AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
              DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG,
              KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
              NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
              UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
          RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG
     AU 9874616
                         A1
                              19981127
                                              `AU 1998-74616
                                                                 19980505
      ZA 9803813
                              19981109
                                               ZA 1998-3813
                                                                 19980506
PRAI SE 1997-1718
                              19970507
     WO 1998-SE826
                              19980505
OS
     MARPAT 130:4092
     Peptidomimetics 4,3,2,6,5-R1OC6R2R3R4R5(CH2)nCH(NR6R7)CONR8CHXCONYR8 [R1 =
AΒ
     H, alkyl, acyl; R2-R5 = H, OH, halo, alkyl, alkoxy; R6, R7 = H, alkyl; R8
     = H, alkyl; n = 0-2; X = (un) substituted 1-imidazolyl-, 3-oxazolyl-, or
     3-thiazolylpropyl or R9C(:NH)NH(CH2)3, where R9 = H, OH, alkyl, NH2,
     O2NNH; Y = carboxamido-, carboxy- or cycloalkylalkyl derivs.] were prepd.
     as analgesics. Thus, 2R-[2S-amino-3-(4-hydroxyphenyl)propionylamino]-5-
     imidazol-1-ylpentanoic acid (1S-carbamoyl-2-phenylethyl)amide was prepd.
     via peptide in soln.
     215782-93-7P 215782-94-8P 215783-02-1P
ΙT
     RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
     study); PREP (Preparation); USES (Uses)
         (prepn. of analgesic peptidomimetic compds.)
     215782-93-7 CAPLUS
RN
     D-Norvalinamide, L-tyrosyl-5-(2-amino-1H-imidazol-1-yl)-N-(3-phenylpropyl)-
CN
      (9CI)
             (CA INDEX NAME)
```

Absolute stereochemistry.

RN 215782-94-8 CAPLUS

CN D-Norvalinamide, L-tyrosyl-5-(2-amino-1H-imidazol-1-yl)-N-(3-phenylpropyl)-, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 215782-93-7 CMF C26 H34 N6 O3

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 215783-02-1 CAPLUS

CN L-Phenylalaninamide, 2,6-dimethyl-L-tyrosyl-5-(2-amino-lH-imidazol-1-yl)-D-norvalyl-, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 215783-01-0 CMF C28 H37 N7 O4

Absolute stereochemistry.

$$H_2N$$
 $S$ 
 $Ph$ 
 $HN$ 
 $O$ 
 $NH_2$ 
 $CH_2$ )  $R$ 
 $N$ 
 $H$ 
 $NH_2$ 
 $NH_2$ 

CRN 76-05-1 CMF C2 H F3 O2

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
T.20
      ANSWER 13 OF 66 CAPLUS COPYRIGHT 2003 ACS
 AN
       1998:227147
                   CAPLUS
 DN
       128:282838
       Preparation of PDE IV inhibiting 2-cyanoiminoimidazole derivatives
 ጥፐ
      Freyne, Eddy Jean Edgard; Fernandez-Gadea, Francisco Javier; Andres-Gil,
 IN
       Jose Ignacio
      Janssen Pharmaceutica N.V., Belg.; Freyne, Eddy Jean Edgard;
 PA
      Fernandez-Gadea, Francisco Javier; Andres-Gil, Jose Ignacio
 SO
      PCT Int. Appl., 38 pp.
      CODEN: PIXXD2
 DT
      Patent
 LΑ
      English
 FAN.CNT 1
      PATENT NO.
                        KIND
                              DATE
                                             APPLICATION NO.
                                                               DATE
 PΙ
      WO 9814432
                        Α1
                              19980409
                                             WO 1997-EP5322
                                                               19970924
              AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DF, DK,
          W:
              EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC,
              LK, LR, LS, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO,
              RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN,
              YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
          RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,
              GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,
              GN, ML, MR, NE, SN, TD, TG
      AU 9747792
                        A1
                             19980424
                                             AU 1997-47792
                                                               19970924
     AU 719561
                        B2
                             20000511
     EP 934280
                        A1
                             19990811
                                             EP 1997-910380
                                                               19970924
     EP 934280
                        В1
                             20030409
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE,
              SI, LT, LV, FI, RO
     BR 9712256
                        Α
                             19990824
                                             BR 1997-12256
                                                              19970924
     CN 1232456
                        Α
                             19991020
                                             CN 1997-198460
                                                              19970924
     CN 1106387
                        В
                             20030423
     JP 2000503678
                        T2
                             20000328
                                             JP 1998-516215
                                                              19970924
     JP 3068208
                        B2
                             20000724
     JP 3068208
                        B2
                             20000724
                                             JP 1997-516215
                                                              19970924
     RU 2180902
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                             20020327
                                             RU 1999-109032
                                                              19970924
     EE 3825
                        B1.
                             20020815
                                             EE 1999-112
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                                                              19970924
     TW 412533
                        В
                             20001121
                                            TW 1997-86114167 19970930
     ZA 9708809
                       Α
                             19990401
                                            ZA 1997-8809
                                                              19971001
     KR 2000029964
                       Α
                             20000525
                                            KR 1999-701204
                                                              19990212
     US 6051718
                       Α
                             20000418
                                            US 1999-147925
                                                              19990319
     NO 9901560
                       Α
                             19990602
                                            NO. 1999-1560
                                                              19990330
PRAI EP 1996-202749
                       Α
                             19961002
     WO 1997-EP5322
                       W
                             19970924
OS
     MARPAT 128:282838
     2-Cyanoiminoimidazole derivs. I [R1, R2 = hydrogen, C1-6alkyl,
AΒ
     difluoromethyl, trifluoromethyl, C3-6cycloalkyl, satd. 5-, 6- or
     7-membered heterocycle contg. one or two heteroatoms selected from oxygen,
     sulfur or nitrogen, indanyl, 6,7-dihydro-5H-cyclopentapyridinyl,
    bicyclo[2.2.1]-2-heptenyl, bicyclo[2.2.1]heptanyl, C1-6alkylsulfonyl,
     arylsulfonyl, substituted C1-10alkyl; R3 = hydrogen, halo, C1-6alkyloxy;
    R4 = hydrogen, halo, C1-6alkyl, trifluoromethyl, C3-6cycloalkyl, carboxyl,
    C1-4alkyloxycarbonyl, C3-6cycloalkylaminocarbonyl, aryl, substituted
    C1-6alkyl, etc.; R5 = hydrogen, halo, hydroxy, C1-6alkyl, C1-6alkyloxy; R6
    = hydrogen, C1-4alkyl; or R4 and R6, or R4 and R5 taken together may form
    a bivalent radical; -A-B- = -CR10:CR11- or -CHR10CHR11-; L = hydrogen,
```

C1-6alkyl, C1-6alkylcarbonyl, C1-6alkyloxycarbonyl, substituted C1-6alkyl, C3-6alkenyl, substituted C3-6alkenyl, piperidinyl, substituted piperidinyl, C1-6alkylsulfonyl, arylsulfonyl], having PDE IV and cytokine inhibiting activity, were prepd. E.g., reaction of N-[2-[3-(cyclopentyloxy)-4-methoxyphenyl]propyl]-1,2-ethanediamine and di-Me cyanocarbonimidodithioate gave 13% [1-[2-[3-(cyclopentyloxy)-4-methoxyphenyl]propyl]-2-imidazolidinylidene]cyanamide. The inhibiting effect of I on recombinant human MNL phosphodiesterase type IV B was detd.

205699-38-3P 205699-39-4P 205699-40-7P 205699-41-8P 205699-42-9P 205699-43-0P 205699-44-1P 205699-45-2P 205699-46-3P 205699-47-4P 205699-48-5P 205699-49-6P 205699-50-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of PDE IV inhibiting (cyanoimino)imidazoles)

RN 205699-38-3 CAPLUS

CN

Cyanamide, [1-[2-[4-(difluoromethoxy)-3-[(tetrahydro-3-furanyl)oxy]phenyl]propyl]-#H-imidazol-2-yl]- (9CI) (CA INDEX NAME).

RN 205699-39-4 CAPLUS

CN Cyanamide, [1-[2-[3-(cyclopentyloxy)-4-methoxyphenyl]propyl]-1H-imidazol-2-yl]- (9CI) (CA INDEX NAME)

RN 205699-40-7 CAPLUS

CN Cyanamide, [1-[2-[3-(cyclopentyloxy)-4-(difluoromethoxy)phenyl]propyl]-1H-imidazol-2-yl]- (9CI) (CA INDEX NAME)

$$Me$$
 $CH-CH_2-N$ 
 $NH-CN$ 
 $F_2CH-O$ 

RN 205699-41-8 CAPLUS

CN Cyanamide, [1-[2-[3-(cyclopentyloxy)-4-(difluoromethoxy)phenyl]-1H-

## imidazol-2-yl]- (9CI) (CA INDEX NAME)

RN 205699-42-9 CAPLUS

CN Cyanamide, [1-[2-[3-(cyclopropylmethoxy)-4-(difluoromethoxy)phenyl]propyl]1H-imidazol-2-yl]- (9CI) (CA INDEX NAME)

RN 205699-43-0 CAPLUS

CN Cyanamide, [1-[2-[3-[(2,3-dihydro-1H-inden-2-yl)oxy]-4-methoxyphenyl]propyl]-1H-imidazol-2-yl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{MeO} & \text{Me} \\ \hline \\ \text{CH-CH}_2 & \text{N} \\ \end{array}$$

RN 205699-44-1 CAPLUS

CN Cyanamide, [1-[2-[3-(cyclopropylmethoxy)-4-methoxyphenyl]propyl]-1H-imidazol-2-yl]- (9CI) (CA INDEX NAME)

RN 205699-45-2 CAPLUS

CN Cyanamide, [1-[2-[4-methoxy-3-[(5-phenylpentyl)oxy]phenyl]propyl]-1H-imidazol-2-yl]- (9CI) (CA INDEX NAME)

RN 205699-46-3 CAPLUS

CN Cyanamide, [1-[2-[4-methoxy-3-[(tetrahydro-3-furanyl)oxy]phenyl]propyl]-1H-imidazol-2-yl]- (9CI) (CA INDEX NAME)

RN 205699-47-4 CAPLUS

CN Cyanamide, [1-[2-[4-(difluoromethoxy)-3-[(5-phenylpentyl)oxy]phenyl]propyl ]-1H-imidazol-2-yl]- (9CI) (CA INDEX NAME)

F2CH-O

RN 205699-48-5 CAPLUS

CN Cyanamide, [1-[2-[3-[(2,3-dihydro-1H-inden-2-yl)oxy]-4-methoxyphenyl]ethyl]-1H-imidazol-2-yl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{MeO} & \text{NC-NH} \\ \hline \\ \text{CH}_2\text{-CH}_2\text{-N} \\ \end{array}$$

RN 205699-49-6 CAPLUS

CN Cyanamide, [1-[2-[3-[(2,3-dihydro-1H-inden-2-yl)oxy]-4-methoxyphenyl]-2-hydroxyethyl]-1H-imidazol-2-yl]- (9CI) (CA INDEX NAME)

RN 205699-50-9 CAPLUS

CN Cyanamide, [1-[2-[3-[2-(2,3-dihydro-1H-inden-2-yl)ethoxy]-4-methoxyphenyl]propyl]-1H-imidazol-2-yl]- (9CI) (CA INDEX NAME)

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 14 OF 66 CAPLUS COPYRIGHT 2003 ACS

1997:411063 CAPLUS AN

DN 127:121998

Imidazole-containing aminoboronic acids ΤI

Dominguez, Celia; Cacciola, Joseph; Fevig, John Matthew IN

Dupont Merck Pharmaceutical Company, USA PA

SO U.S., 12 pp. CODEN: USXXAM

 $\mathbf{DT}$ Patent

LΑ English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5639739 US 1995-409573	Α	19970617 19950324	US 1995-409573	19950324

os MARPAT 127:121998

.alpha.-Aminoboronic acids and corresponding peptide analogs ABR1R2NCHR3CONHCH(BR4R5)(CH2)nC3H2N2NH2-2 [C3H2N2NH2-2 is 2-amino-1-imidazolyl; R1 = acyl, acyl amino acid residue; R2 = aralkyl, arylcycloalkylmethyl; R3 = H or R2R3 may form a proline residue; R4, R5 = OH or BR4R5 is a cyclic boron ester derived from pinanediol, pinacol, 1,2-ethanediol, etc.; n=1-4] were prepd. as inhibitors of trypsin-like serine protease enzymes, esp. thrombin, Factor X and Factor VII. Thus, Ac-D-Phe-Pro-boroGly-(CH2)3C3H2NH2-2-C10H16 (C10H16 = pinanediol residue) was prepd. by treatment of Ac-D-Phe-Pro-boroGly-(CH2)3NH2.HCl with 2-nitroimidazole, followed by redn. of the nitro group by H2-Pd(OH)2.

ΙT 186765-59-3P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of imidazole-contg. aminoboronic acids and peptides)

186765-59-3 CAPLUS RN

CN yl)-1-[(3aS,4S,6S,7aR)-hexahydro-3a,5,5-trimethyl-4,6-methano-1,3,2benzodioxaborol-2-yl]butyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 2-A

- ANSWER 15 OF 66 CAPLUS COPYRIGHT 2003 ACS
- AN 1997:133650 CAPLUS
- DN 126:246419
- S-2-Amino-5-(2-nitroimidazol-1-yl)pentanoic acid: a model for potential ΤI bioreductively activated prodrugs for inhibitors of nitric oxide synthase (NOS) activity
- Ulhaq, Saraj; Naylor, Matthew A.; Chinje, Edwin C.; Threadgill, Michael ΑU D.; Stratford, Ian J.
- Division of Experimental Oncology, MRC Radiobiology Unit, Oxfordshire, CS OX11 ORD, UK
- SO Anti-Cancer Drug Design (1997), 12(1), 61-65 CODEN: ACDDEA; ISSN: 0266-9536
- PΒ Oxford University Press
- DT Journal
- LΑ English
- Treatment of 1,1-dimethylethyl S-(2-1,1-dimethylethoxycarbonylamino)-5-AB bromopentanoate with 1-potassio-2-nitroimidazole, followed by deprotection, afforded S-2-amino-5-(2-nitroimidazol-1-yl)pentanoic acid, which was reduced to S-2-amino-5-(2-aminoimidazol-1-yl)pentanoic acid. This aminoimadazole inhibited rat brain nitric oxide synthase (NOS) activity 3.2 times more potently than did the nitro analog. Thus S-2-amino-5-(2-nitroimidazol-1-yl)pentanoic acid is a potent prodrug which may be bioreductively activated to a NOS inhibitor in hypoxic solid tumors to bring about vascular shut-down.
- ΙT 188634-03-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(amino(nitroimidazolyl)pentanoic acid as model for potential bioreductively activated prodrugs for inhibitors of nitric oxide synthase in relation to vascular shut-down in hypoxic solid tumors)

188634-03-9 CAPLUS RN

1H-Imidazole-1-pentanoic acid, .alpha.,2-diamino-, 1,1-dimethylethyl CNester, (S)- (9CI) (CA INDEX NAME)

ANSWER 16 OF 66 CAPLUS COPYRIGHT 2003 ACS

1997:56330 CAPLUS AN

DN 126:139500

S1 heterocyclic thrombin inhibitors ΤI

Dominguez, C.; Carini, D. J.; Weber, P. C.; Knabb, R. M.; Alexander, R. AU S.; Kettner, C. A.; Wexler, R. R.

Exptl. Sta., DuPont Merck Pharmaceutical Co., Wilmington, DE, 19880-0500, CS

SO Bioorganic & Medicinal Chemistry Letters (1997), 7(1), 79-84 CODEN: BMCLE8; ISSN: 0960-894X

PB Elsevier

DT Journal

LΑ English

A series of boropeptides have previously been described by Kettner et al. ÀΒ to be potent thrombin inhibitors. DuP 714 is a representative of this class of compds. with a Ki = 0.040 nM, but this inhibitor has undesirable side effects. New and selective boronic acid thrombin inhibitors have been developed by replacing the guanidine of the boroarginine side chain with various heterocycles ranging in size and basicity.

186765-59-3P 186765-60-6P ΙT RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of boropeptide heterocycles as thrombin inhibitors)

RN 186765-59-3 CAPLUS

CN yl)-1-[(3aS,4S,6S,7aR)-hexahydro-3a,5,5-trimethyl-4,6-methano-1,3,2benzodioxaborol-2-yl]butyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 2-A

RN 186765-60-6 CAPLUS

CN L-Prolinamide, N-(butylsulfonyl)-D-phenylalanyl-N-[(1R)-4-(2-amino-1H-imidazol-1-yl)-1-[(3aS,4S,6S,7aR)-hexahydro-3a,5,5-trimethyl-4,6-methano-1,3,2-benzodioxaborol-2-yl]butyl]- (9CI) (CA INDEX NAME)

## 10/009,607

ANSWER 17 OF 66 CAPLUS COPYRIGHT 2003 ACS L20

1996:756682 CAPLUS AN

DN 126:89305

Synthesis of substituted 2-amino-1-(arylideneamino)imidazoles and ΤI 1-(arylideneamino)imidazo[1,2-a]imidazoles

Krimer, M. Z.; Makaev, F. Z.; Styngach, E. P.; Koretsky, A. G.; Pogrebnoy, ΑU S. I.; Kochug, A. I.

CS Russia

Khimiya Geterotsiklicheskikh Soedinenii (1996), (9), 1209-1213 SO CODEN: KGSSAQ; ISSN: 0132-6244

Latviiskii Institut Organicheskogo Sinteza PB

·DT Journal

LΑ Russian

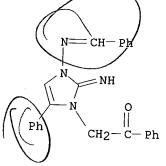
2-Amino-1-(arylideneamino)imidazoles, e.g., I, were prepd. by AΒ cyclocondensation of benzaldehyde guanylhydrazones with .alpha.-halo ketones. 1-(Arylideneamino)imidazo[1,2-a]imidazoles were then prepd. by cyclocondensation of these products with .alpha.-halo ketones at >100.degree..

185422-42-8P 185422-43-9P 185422-44-0P IT 185422-45-1P 185422-46-2P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

RN185422-42-8 CAPLUS

CN imidazol-1-yl]-1-phenyl-, monohydrobromide (9CI) (CA INDEX NAME)



#### 🕨 HBr

RN 185422-43-9 CAPLUS

Ethanone, 1-(2,4-dichlorophenyl)-2-[2,3-dihydro-2-imino-5-phenyl-3-CN [(phenylmethylene)amino]-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CA INDEX NAME)

## ● HBr

# • HBr

OMe

RN 185422-45-1 CAPLUS
CN Ethanone, 1-(4-chlorophenyl)-2-[2,3-dihydro-2-imino-5-phenyl-3[(phenylmethylene)amino]-1H-imidazol-1-yl]-, monohydrobromide (9CI) (CAINDEX NAME)

# HBr

RN 185422-46-2 CAPLUS

CN Ethanone, 2-[2,3-dihydro-2-imino-5-phenyl-3-[(phenylmethylene)amino]-1H-imidazol-1-yl]-1-(4-fluorophenyl)-, monohydrobromide (9CI) (CA INDEX NAME)

● HBr

- L20 ANSWER 19 OF 66 CAPLUS COPYRIGHT 2003 ACS
- AN 1996:324454 CAPLUS
- DN 125:25771
- TI S-2-Amino-5-(2-nitroimidazol-1-yl) pentanoic acid: A potential bioreductively-activated inhibitor of nitric oxide synthase activity for use in cancer therapy
- AU Ulhaq, Saraj; Naylor, Matthew A.; Threadgill, Michael D.; Chinje, Edwin; Stratford, Ian J.
- CS MRC Radiobiology Unit, Chilton/Oxon, OX11 ORD, UK
- Portland Press Proceedings (1996), 10 (Biology of Nitric Oxide Part 5), 225 CODEN: POPPEF; ISSN: 0966-4068
- PB Portland Press
- DT Journal
- LA English
- AB S-2-Amino-5-(2-aminoimidazol-1-yl)pentanoic acid inhibits NOS activity (IC50=1.98 mM) and the inhibition is concn.-dependent. S-2-Amino-5-(2-nitroimidazol-1-yl)pentanoic acid shows very little inhibition. The latter may be a potentially hypoxia-selective prodrug of the aminoimidazolyl deriv. with a possible application in the selective modulation of tumor blood flow.
- IT 177906-16-0
  RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES

(amino(nitroimidazolyl)pentanoate prodrug as nitric oxide synthase
inhibitor)

- RN 177906-16-0 CAPLUS
- CN 1H-Imidazole-1-pentanoic acid, .alpha.,2-diamino-, (.alpha.S)- (9CI) (CA INDEX NAME)

L20 ANSWER 20 OF 66 CAPLUS COPYRIGHT 2003 ACS

AN 1995:717130 CAPLUS

DN 123:316886

TI Azole-type photographic cyan couplers

IN Ikesu, Satoru; Kita, Hiroshi; Kaneko, Yutaka

PA Konishiroku Photo Ind, Japan

SO Jpn. Kokai Tokkyo Koho, 16 pp. CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07128824 JP 1993-277014	A2	19950519 19931105	JP 1993-277014	19931105

OS MARPAT 123:316886

AB Azoles I or II (Ar = aryl; R1 = H, substituent; R2 = substituent; X = H, group capable of being released upon reaction with an oxidized color developer; Y = substituent with Hammett .sigma.p value 0.3-1.5; Z = S, O, NR2) are claimed as photog. couplers. The photog. couplers show good color reproducibility and provide color images with resistance to heat, moisture, and light.

IT 170278-66-7 170278-74-7

RL: DEV (Device component use); USES (Uses)
(azoles as cyan couplers with color reproducibility for images resistant to heat, moisture, and light)

RN 170278-66-7 CAPLUS

CN 1H-Imidazol-2-amine, 5-chloro-1-dodecyl-N-phenyl-4-(trifluoromethyl)(9CI) (CA INDEX NAME)

RN 170278-74-7 CAPLUS

CN [1,5'-Bi-1H-imidazole]-4'-sulfonamide, 2'-(cyanoamino)-1'-pentadecyl-N-phenyl- (9CI) (CA INDEX NAME)

```
ANSWER 22 OF 66 CAPLUS COPYRIGHT 2003 ACS
      1995:638526 CAPLUS
 ΑN
 DN
      123:55585
      3-pyrrolidinylthio-carbapenem derivatives and their antimicrobial activity
 ΤI
     Murata, Masayoshi; Tsutsumi, Hideo; Matsuda, Keiji; Hattori, Kohji;
      Nakajima, Takashi
 PA
      Fujisawa Pharmaceutical Co., Ltd., Japan
 SO
      PCT Int. Appl., 139 pp.
      CODEN: PIXXD2
DT
      Patent
LΑ
     English
FAN.CNT 1
     PATENT NO.
                       KIND
                             DATE
                                            APPLICATION NO.
      -----
PΙ
     WO 9510520
                       A1
                             19950420
                                            WO 1994-JP1588
                                                             19940927
         W: AU, CA, CN, JP, KR, US
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
     AU 9477068
                       Α1
                             19950504
                                            AU 1994-77068
                                                             19940927
     EP 722447
                       A1
                             19960724
                                            EP 1994-927783
                                                             19940927
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE
     JP 09503518
                       Т2
                            19970408
                                            JP 1994-511578
                                                             19940927
PRAI GB 1993-20816
                             19931008
     WO 1994-JP1588
                            19940927
OS
     MARPAT 123:55585
     Carbapenem derivs. I, in which R1 is carboxy, etc., R2 is
AΒ
     hydroxy(lower)alkyl, etc., R3 is hydrogen or lower alkyl, R4 is 2(or
     3)-methylpyridin-4-ylmethyl, etc., and R5 is hydrogen or imino-protective
     group, or pharmaceutically acceptable salts thereof, which are useful as
     an antimicrobial agent.
ΙŢ
     164163-12-6P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. and antimicrobial activity of pyrrolidinylthio-carbapenems)
RN
     164163-12-6 CAPLUS
     1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 3-[[5-[2-(2,3-dihydro-2-
CN
    imino-3-methyl-1H-imidazol-1-yl)ethyl]-3-pyrrolidinyl]thio]-6-(1-
```

Absolute stereochemistry.

hydroxyethyl)-4-methyl-7-oxo-, monohydrochloride, [4R-

[3(2R\*,4S\*),4.alpha.,5.beta.,6.beta.(R\*)]]- (9CI) (CA INDEX NAME)

```
ANSWER 23 OF 66 CAPLUS COPYRIGHT 2003 ACS
       1994:134534 CAPLUS
 AN
       120:134534
 DN
      Preparation of pyrimidinyl- and triazinylurea derivatives as herbicides
 ΤI
      Makino, Kenzi; Akiyama, Shigeaki; Suzuki, Hideaki; Nagaoka, Takeshi; Niki,
 IN
      Toshio; Suzuki, Koichi; Nawamaki, Tsutomu; Watanabe, Shigeomi; Ishikawa,
      Kimihiro
 PA
      Nissan Chemical Industries, Ltd., Japan
      PCT Int. Appl., 337 pp.
      CODEN: PIXXD2
 DΤ
      Patent
 LΑ
      Japanese
 FAN.CNT 1
      PATENT NO.
                       KIND
                             DATE
                                             APPLICATION NO.
                                             -----
 PΙ
      WO 9300336
                        A1
                             19930107
                                            WO 1992-JP808
                                                              19920625
          W: AU, BG, BR, CA, CS, FI, HU, JP, KR, NO, PL, RO, RU, US
          RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE
      CA 2112457
                        AΑ
                             19930107
                                            CA 1992-2112457 19920625
      AU 9221667
                        A1
                             19930125
                                            AU 1992-21667
                                                              19920625
      AU 658212
                        B2
                             19950406
      EP 592676
                        A1
                             19940420
                                            EP 1993-901023
                                                              19920625
      EP 592676
                        В1
                             19980930
          R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE
      RU 2109011
                             19980420
                        C1
                                            RU 1993-58608
                                                              19920625
     AT 171699
                             19981015
                        Ε
                                            AT 1993-901023
                                                              19920625
     ES 2123044
                             19990101
                        Т3
                                            ES 1993-901023
                                                              19920625
     JP 3208773
                        В2
                             20010917
                                            JP 1993-501236
                                                              19920625
     US 5500406
                        Α
                             19960319
                                            US 1994-170222
                                                              19940415
     US 5604179
                        Α
                             19970218
                                            US 1995-472921
                                                              19950607
     US 5686390
                        Α
                             19971111
                                            US 1995-573549
                                                              19951215
PRAI JP 1991-158106
                        Α
                             19910628
     JP 1991-193984
                        Α
                             19910802
     JP 1991-199181
                        Α
                             19910808
     JP 1991-204294
                        Α
                             19910814
     JP 1991-245876
                        Α
                             19910925
     JP 1991-271305
                       Α
                             19911018
     JP 1991-296807
                       Α
                             19911113
     JP 1991-319422
                       Α
                             19911203
     JP 1991-320618
                       Α
                             19911204
     JP 1992-7397
                       A
                             19920120
     JP 1992-66277
                       Α
                             19920324
     JP 1992-94534
                       Α
                             19920414
     JP 1992-111494
                       Α
                             19920430
     WO 1992-JP808
                       Α
                             19920625
     US 1994-170222
                       A1
                            19940415
OS
     MARPAT 120:134534
     Title compds. [I; A = CH, N; B, D = C1-4 alkyl, haloalkyl, alkoxy,
AB
     haloalkoxy, halo, (di)alkylamino; L = H, C1-6 alkyl, C2-6 alkenyl,
     alkynyl; Q = Q1 (wherein R = substituent; E = O, S, substituted imino),
     etc., X = 0, S] are prepd. ClSO2NCO (1.42 g) was added dropwise to a
     soln. of 1.55 g amine deriv. II in THF at -10.degree. to -5.degree., the
     mixt. was stirred at 0.degree., cooled to -30.degree., 1.14 g thiazole
     deriv. III and Et3N were added, and the mixt. was stirred at room temp. to
     give 1.5 g urea deriv. IV, which killed 70-90% barnyard grass, >90%
     Cyperus microiria, etc.
ΙT
     153068-30-5P
```

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

● HCl

## 10/009,607

L20 ANSWER 24 OF 66 CAPLUS COPYRIGHT 2003 ACS

AN 1994:54763 CAPLUS

DN 120:54763

TI Synthesis and LTB4 receptor antagonist activities of the naturally occurring LTB4 receptor antagonist leucettamine A and related analogs

AU Boehm, Jeffrey C.; Gleason, John G.; Pendrak, Israil; Sarau, Henry M.; Schmidt, Dulcie B.; Foley, James J.; Kingsbury, William D.

CS Dep. Med. Chem., Smithkline Beecham Pharm., King of Prussia, PA, 19406-0939, USA

SO Journal of Medicinal Chemistry (1993), 36(22), 3333-40 CODEN: JMCMAR; ISSN: 0022-2623

DT Journal

LA English

Total synthesis of leucettamine A (I, R = Me, R1 = R2 = 3,4-methylenedioxybenzyl) is achieved by a convergent route which takes advantage of the elements of symmetry within the mol. Syntheses of analogs I [R = Me, hexyl H; R1 = CH2Ph, H, Me; R2 = CH2Ph, CH2C6H4OMe-3, CH2C6H4(CH2)4OH-4], which lacked the same degree of symmetry, are achieved by a different approach starting from .alpha.-amino acids. I (R = Me, R1 = R2 = 3,4-methylenedioxybenzyl) inhibits [3H]LTB4 binding to its receptors on intact human U-937 cells with a Ki = 3.5 .+-. 0.8 .mu.M and is devoid of measurable agonist activity at the concns. tested. Other I were significantly less potent. However, I [R = Me, R1 = CH2Ph, R2 = CH2C6H4(CH2)4OH-4], designed on the basis of a putative structural overlay with LTB4, demonstrated potency comparable to that of the natural product

IT 151830-84-1P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. and LTB4 antagonist activity of)

RN 151830-84-1 CAPLUS

CN 1H-Imidazol-2-amine, 1-hexyl-4,5-bis(phenylmethyl)- (9CI) (CA INDEX NAME)

Ph-CH<sub>2</sub> 
$$N$$
  $NH_2$   $N$ 

ANSWER 26 OF 66 CAPLUS COPYRIGHT 2003 ACS L20

ΑN 1993:626564 CAPLUS

DN 119:226564

Synthesis and physical properties of N-substituted polyimides based on TI imidazole

ΑU Kim, Yang Kook; Rasmussen, Paul G.

Macromol. Sci. Eng. Cent., Univ. Michigan, Ann Arbor, MI, 48109, USA CS SO

Journal of Polymer Science, Part A: Polymer Chemistry (1993), 31(10), 2583-95

CODEN: JPACEC; ISSN: 0887-624X

DT Journal

LА English

AB-type monomers based on imidazole for the prepn. of polyimides were AΒ synthesized by carrying out a substitution at the 1-position of 2-amino-4,5-dicyanoimidazole, followed by hydrolysis. Thus, pendent groups such as hexyl and 2,4-dinitrophenyl as an aliph. long chain and an electron-withdrawing group, resp., were introduced at the 1-position of the imidazole monomer. Solid-state polymn. was employed to prep. the poly(imidazole imides) in the form of a film from poly(imidazole amic acid chlorides) by heating up to 180-200 degree.. The carbonyl stretching peaks of the imide ring appeared at 1808 (sym) cm-1 and 1756 (antisym) The effects of monomer structure on reactivity and the degree of imidization were investigated by comparing the viscosity of the resultant polymers and intensity of carbonyl peak at 1808 cm-1. The difference in the hydrolysis rate between polyimides having short or long aliph. pendent groups at the 1-position was obsd. using FT-IR. The inherent viscosity of the N-hexyl polyimide was 1.26 dL/g in N-methylpyrrolidinone and 0.22 dL/g in the case of the N-(2,4-dinitrophenyl) poly(amic acid) in MeSO3H at 30.degree.. The structural, phys., and material properties of the polyimides were characterized by IR, NMR, luminescence, and viscosimetric methods, DSC, TGA, optical microscopy, and wide-angle x-ray scattering. Soln. properties were also investigated by monitoring the viscosity as a function of time at 30.degree.. Luminescence spectroscopy of the poly(1-Me imidazole imide) and poly(1-Me imidazoleamic acid) films showed an emission band centered at 535 and 505 nm, resp. Thermal properties were described comparing the wt. loss and decompn. temp. as a function of the polymer structure and the degree of imidization.

IT 151174-79-7P

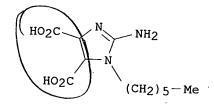
> RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. and characterization of)

RN 151174-79-7 CAPLUS

1H-Imidazole-4,5-dicarboxylic acid, 2-amino-1-hexyl-, homopolymer (9CI) CN (CA INDEX NAME)

CM

CRN 151169-03-8 CMF C11 H17 N3 O4



IT 151169-01-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and hydrolysis of)

RN 151169-01-6 CAPLUS

CN 1H-Imidazole-4,5-dicarbonitrile, 2-amino-1-hexyl- (9CI) (CA INDEX NAME)

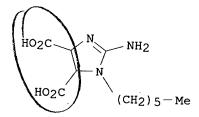
151169-03-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and polymn. of)

RN 151169-03-8 CAPLUS

CN 1H-Imidazole-4,5-dicarboxylic acid, 2-amino-1-hexyl- (9CI) (CA INDEX NAME)



L20 ANSWER 27 OF 66 CAPLUS COPYRIGHT 2003 ACS

AN 1993:621209 CAPLUS

DN 119:221209

TI Synthesis and structure-activity relationships of new cephalosporins with aminoimidazoles at C-7: effect of the pKa of the C-7 aminoimidazole on antibacterial spectrum and .beta.-lactamase stability

AU Jung, F.; Boucherot, D.; Delvare, C.; Olivier, A.; Davies, G. M.; Betts, M. J.; Brown, R.; Stevenson, R.; Joseph, M.; et al.

CS Cent. Rech., ZENECA Pharma, Reims, 51064, Fr.

SO Journal of Antibiotics (1993), 46(6), 992-1012 CODEN: JANTAJ; ISSN: 0021-8820

DT Journal

LA English

Cephalosporins with new aminoimidazole heterocycles at C-7 [I, e.g., R = H or Me, Rl = SMe, (CH2)2NO2, CO2Et, CH2SMe, NHCOEt, (CH2)3SOEt, R2 = H, (CH2)3NH2, or CH2CH:CH2, X = OAc or 1-methyl-5-tetrazolylthio] were prepd. by reaction of anti-.alpha.-aminooximes with C-7 dihaloisocyanocephalosporin esters or by direct condensation of 2-fluoroimidzoles with C-7 aminocephalosporins esters. These compds. combine a broad spectrum of antibacterial activity, including Gram-neg. and Gram-pos. organisms with a good .beta.-lactamase stability. The activity is discussed in terms of its relation to the pKa of the C-7 aminoimidazole heterocycle, basic C-7 aminoimidazole residues gave cephalosporins with the best .beta.-lactamase stability but the poorest activity against Gram-pos. organisms. An addnl. interesting property of the C-7 imidazolylaminocephalosporins is the oral activity present in some compds. of this series.

IT 150715-33-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and antibacterial activity and .beta.-lactamase stability of,
 structure in relation to)

RN 150715-33-6 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 3-[(acetyloxy)methyl]-7-[[1-(3-aminopropyl)-1H-imidazol-2-yl]amino]-8-oxo-, (6R-trans)- (9CI) (CA INDEX NAME)

ANSWER 30 OF 66 CAPLUS COPYRIGHT 2003 ACS

1991:546539 CAPLUS AN

DN 115:146539

Silver halide photographic material containing tricyanoethylene dye ΤI IN

Kagawa, Nobuaki; Tanaka, Mari; Kawashima, Yasuhiko; Usagawa, Yasushi PA

Konica Co., Japan

SO Jpn. Kokai Tokkyo Koho, 16 pp. CODEN: JKXXAF

DTPatent

LΑ Japanese

FAN.CNT 1

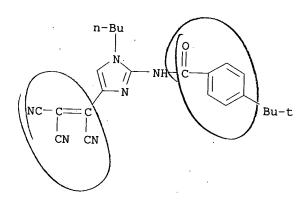
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI PRAI	JP 03031840 JP 1989-167228	A2	19910212 19890628	JP 1989-167228	19890628

OS MARPAT 115:146539

The photog. material has, on a support, .gtoreq.1 layer contg. dye AΒ AC(CN):C(CN)2 (I; A = pyrazole or imidazole ring). The dye has good decoloring properties and the material gives clear images without fog. Thus, a Ag(Br,Cl) emulsion contg. I (A = II) was coated on a film base to make a photog. film.

ΙT 135716-49-3 RL: USES (Uses) (dye, photog. film contg.) RN 135716-49-3 CAPLUS

Benzamide, N-[1-butyl-4-(tricyanoethenyl)-1H-imidazol-2-yl]-4-(1,1-CN . dimethylethyl) - (9CI) (CA INDEX NAME)



ANSWER 31 OF 66 CAPLUS COPYRIGHT 2003 ACS

1991:229261 CAPLUS AN

DN 114:229261

Same on #29 Synthesis of 1-alkyl-4-(D-arabino-tetritol-1-yl)-4-imidazolin-2-ΤI ylideneammonium picrates and chlorides

ΑU Fernandez-Bolanos, J.; Alaiz-Barragan, M.

Fac. Quim., Univ. Sevilla, Seville, Spain CS

SO Anales de Quimica (1990), 86(7), 791-6 CODEN: ANQUEX; ISSN: 1130-2283

DTJournal

LΑ Spanish

CASREACT 114:229261 OS

The reaction of 1-alkylamino-1-deoxy-D-arabino-hexulose [alkyl-group (R) =  $\frac{1}{2}$ AΒ Me, Pr, Bu, octyl, dodecyl] with cyanamide afforded I picrate and chloride salts (title compds.). The chlorides underwent N- and O-acetylation with Ac20-pyridine. Deacetylation of I (R = Me) hexaacetyl deriv. with MeONa gave 2-acetylamino-1-methyl-4-(D-arabino-tetritol-1-yl)-1H-imidazole. I (R = H, Me) HCl salts underwent metaperiodate oxidn. of the tetritolyl group to give the aldehydes.

ΙT 133746-56-2P 133813-69-1P 133813-70-4P 133813-71-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn., acetylation, and spectra of)

RN 133746-56-2 CAPLUS

1,2,3,4-Butanetetrol, 1-(2-amino-1-octyl-1H-imidazol-4-yl)-, CN monohydrochloride, [1R-(1R\*,2S\*,3R\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

HO 
$$R$$
  $S$   $R$   $N$   $NH_2$   $OH$   $(CH_2)$   $T$ 

HCl

RN 133813-69-1 CAPLUS

1,2,3,4-Butanetetrol, 1-(2-amino-1-propyl-1H-imidazol-4-yl)-, CN monohydrochloride, [1R-(1R\*,2S\*,3R\*)]- (9CI) (CA INDEX NAME)

## HCl

133813-70-4 CAPLUS RN

1,2,3,4-Butanetetrol, 1-(2-amino-1-butyl-1H-imidazol-4-yl)-, CN monohydrochloride, [1R-(1R\*,2S\*,3R\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

## HC1

. RN 133813-71-5 CAPLUS

1,2,3,4-Butanetetrol, 1-(2-amino-1-dodecyl-1H-imidazol-4-yl)-, CN monohydrochloride, [1R-(1R\*,2S\*,3R\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

## ● HCl

133746-53-9P 133746-55-1P 133746-58-4P IT

133814-24-1P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn., exchange reaction with chloride, and spectra of)

133746-53-9 CAPLUS RN

1,2,3,4-Butanetetrol, 1-(2-amino-1-propyl-1H-imidazol-4-yl)-, CN

[1R-(1R\*,2S\*,3R\*)]-, compd. with 2,4,6-trinitrophenol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 133746-52-8 CMF C10 H19 N3 O4

Absolute stereochemistry.

CM 2

CRN 88-89-1 CMF C6 H3 N3 O7

RN 133746-55-1 CAPLUS CN 1,2,3,4-Butanetetrol, 1-(2-amino-1-butyl-1H-imidazol-4-yl)-, [1R-(1R\*,2S\*,3R\*)]-, compd. with 2,4,6-trinitrophenol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 133746-54-0 CMF C11 H21 N3 O4

Absolute stereochemistry.

CM 2

CRN 88-89-1 CMF C6 H3 N3 O7

RN 133746-58-4 CAPLUS CN 1,2,3,4-Butanetetrol, 1-(2-amino-1-dodecyl-1H-imidazol-4-yl)-, [1R-(1R\*,2S\*,3R\*)]-, compd. with 2,4,6-trinitrophenol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 133746-57-3 CMF C19 H37 N3 O4

Absolute stereochemistry.

CM 2

CRN 88-89-1 CMF C6 H3 N3 O7

RN 133814-24-1 CAPLUS CN 1,2,3,4-Butanetetrol, 1-(2-amino-1-octyl-1H-imidazol-4-yl)-, [1R-(1R\*,2S\*,3R\*)]-, compd. with 2,4,6-trinitrophenol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 133814-23-0 CMF C15 H29 N3 O4

# Absolute stereochemistry.

CM 2

CRN 88-89-1 CMF C6 H3 N3 O7

```
ANSWER 32 OF 66 CAPLUS COPYRIGHT 2003 ACS
 ΑN
       1990:139735 CAPLUS
 DN
       112:139735
       2,2-Disubstituted glycerol and glycerol-like compounds as
 TI
       antiinflammatories and platelet activating factor (PAF) antagonists
      Solomon, Daniel M.; Kaminski, James J.; White, Steven K.; Lehman, Laura
 IN
      S.; Ganguly, Ashit K.
                                                         Sam an #25
 PA
      Schering Corp., USA
      Eur. Pat. Appl., 101 pp.
      CODEN: EPXXDW
 DΤ
      Patent
 LΑ
      English
 FAN.CNT 1
      PATENT NO.
                       KIND
                              DATE
                                            APPLICATION NO.
                                                              DATE
      _____
                       ____
 PI
      EP 327962
                        A1
                              19890816
                                            EP 1989-101794
                                                              19890202
          R: ES, GR
      WO 8907099
                        A1
                             19890810
                                            WO 1988-US315
                                                              19880205
             AT, AU, BB, BG, BR, CH, DE, DK, FI, GB, HU, JP, KP, KR, LK, LU,
              MC, MG, MW, NL, NO, RO, SD, SE, SU, US
          RW: AT, BE, BJ, CF, CG, CH, CM, DE, FR, GA, GB, IT, LU, ML, MR, NL,
              SE, SN, TD, TG
      AU 8812946
                        A1
                             19890825
                                            AU 1988-12946
                                                              19880205
      WO 8907100
                        A1
                             19890810
                                            WO 1989-US336
                                                              19890202
          W: AU, BB, BG, BR, DK, FI, HU, JP, KP, KR, LK, MC, MG, MW, NO, RO,
              SD, SU, US
          RW: AT, BE, BJ, CF, CG, CH, CM, DE, FR, GA, GB, IT, LU, ML, MR, NL,
              SE, SN, TD, TG
     AU 8931918
                        A1
                             19890825
                                            AU 1989-31918
                                                             19890202
      EP 398990
                        A1
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                                            EP 1989-902853
                                                             19890202
         R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE
     JP 03501612
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     JP 06062542
                        B4
                             19940817
     DK 9001857
                             19901004.
                        Α
                                            DK 1990-1857
                                                             19900803
     JP 07165739
                             19950627
                        A2
                                            JP 1994-16152
                                                             19940210
     JP 07179406
                        A2
                             19950718
                                            JP 1994-16159
                                                             19940210
PRAI WO 1988-US315
                             19880205
     WO 1989-US336
                            19890202
OS
     MARPAT 112:139735
     Title compds. R1OCH2CR2R3CH2R4 [I; R1 = alkyl, CONR5R6; R5 = H, alkyl,
     aryl, etc.; R6 = alkyl, aryl, etc.; R5R6N = heterocyclyl; R2 = alkyl, CF3,
     aralkyl, aryl; R3 = XCmHm+1; X = CH2, O, NR7, SOn; m = 1-6; n = 0,1; R7 =
     H, alkyl, acyl; R4 = TUV; T = OPO3, OCO2, O, S, NR7, OCONR7, NR7CO2; U =
     (CH2)1 (1 = 2-10), (CH2) kC6H4 (CH2) k (k = 1-3); V = AZ, Z = bond, O, S,
     O(CH2)o (o = 1-3), OCO2, NR7; A = alkyl, heteroaryl, etc.; with the
     proviso that when R1 = alkyl, T .noteq. OPO3] are prepd., e.g. by (1)
     reaction of R1OCH2CR2R3CH2TUL1 (II) andL2ZA (L1, R2 = leaving group), (2)
     reaction of R1OCH2CR2R3CH2O2CL1 and L2OUV for I (T = OCO2), and (3)
     N-alkylation of H2NCO2CHCR2R3CH2R4 for I (R1 = CONHR6; R6 = alkyl).
     Treatment of n-C18H37NMeCO2CH2CMe(OMe)CH2O(CH2)17OSO2Me (prepn. given)
     with thiazole in the presence of Bu4N+I- gave a thiazolinium compd. III.
     III at 50 .mu.M showed 100% inhibition of PAF-induced platelet
     aggregation. Pharmaceutical formulation examples are given.
ΙŢ
     125319-91-7P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. of, as antiinflammatory agent and platelet activating factor
        antagonist)
RN.
    125319-91-7 CAPLUS
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CN Carbamic acid, methyloctadecyl-, 3-[[7-(2-amino-1H-imidazol-1-yl)heptyl]oxy]-2-methoxy-2-methylpropyl ester (9CI) (CA INDEX NAME)

L20 ANSWER 33 OF 66 CAPLUS COPYRIGHT 2003 ACS

AN 1990:275 CAPLUS

DN 112:275

TI Reductive metabolism and DNA binding of misonidazole

AU Djuric, Zora

CS Dep. Obstet. Gynecol., Wayne State Univ., Detroit, MI, 48201, USA

SO Toxicology and Applied Pharmacology (1989), 101(1), 47-54 CODEN: TXAPA9; ISSN: 0041-008X

DT Journal

LA English

The DNA binding of misonidazole was examd. after chem. and enzymic redn. AΒ Under anaerobic conditions, both rat liver microsomes and cytosol catalyzed the reductive metab. and DNA binding of misonidazole. The misonidazole utilized in these studies was radiolabeled on the side chain. The adduct(s) formed was too unstable for structural anal. Little or no metab. of misonidazole was detected in aerobic incubations. Likewise, very little DNA binding occurred in the presence of O. Xanthine oxidase, a model nitroreductase, also was capable of catalyzing the DNA binding of misonidazole. However, unlike the xanthine oxidase-catalyzed DNA binding of carcinogenic nitropolycyclic arom. hydrocarbons, the DNA binding of misonidazole was not increased at slightly acidic pH. The putative reactive intermediate, the N-hydroxylamine, was synthesized by Zn redn. of misonidazole. The DNA binding of the N-hydroxylamine deriv. increased with increasing pH. The obsd. pH dependence of the reactions with DNA is similar to that of other heterocyclic N-hydroxylamines, but is in contrast to the reactivity of a no. of arom. N-hydroxylamines.

IT 78524-63-7

RL: FORM (Formation, nonpreparative)

(formation of, as misonidazole metabolite, DNA binding in relation to)

RN 78524-63-7 CAPLUS

CN 1H-Imidazole-1-ethanol, 2-(hydroxyamino)-.alpha.-(methoxymethyl)- (9CI) (CA INDEX NAME)

L20 ANSWER 34 OF 66 CAPLUS COPYRIGHT 2003 ACS

AN 1989:573315 CAPLUS

DN 111:173315

TI Kinetics and mechanism of the decomposition in aqueous solutions of 2-(hydroxyamino)imidazoles

AU Bolton, Judy L.; McClelland, Robert A.

CS Dep. Chem., Univ. Toronto, Toronto, ON, M5S 1A1, Can.

SO Journal of the American Chemical Society (1989), 111(21), 8172-81 CODEN: JACSAT; ISSN: 0002-7863

DT Journal

LA English

OS CASREACT 111:173315

AB A kinetic study is reported of the reaction in aq. soln. whereby 1-X-2-(hydroxyamino)imidazoles (I) are converted into 1-X-2-amino-4,5-dihydro-4,5-dihydroxyimidazolium ions, with substituents X = H, CH3, CH2CH2Br, CH2CH(OH)CH2OCH3, CH2CONHCH2CH2OH, and CH2CH(OH)CH2NC5H1O. A mechanism is proposed with the neutral form of the imidazole as the kinetically active species, undergoing rate-limiting cleavage of the N-O bond with no catalysis (OH- as leaving group) and with catalysis by the hydronium ion and by buffer acids. These reactions produce a resonance-stabilized imidazolenitrenium ion, which reacts with water and added nucleophiles leading to products. Through analogy with acetal hydrolysis, the prodn. of a stabilized cationic intermediate is suggested to be responsible for the general-acid catalysis. The relevance to metabolic redn. of 2-nitroimidazole drugs is discussed.

IT 78524-63-7P 124206-08-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

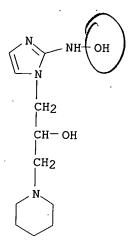
(prepn. and decompn. of, in aq. soln., kinetics and mechanism of)

RN 78524-63-7 CAPLUS

CN 1H-Imidazole-1-ethanol, 2-(hydroxyamino)-.alpha.-(methoxymethyl)- (9CI) (CA INDEX NAME)

RN 124206-08-2 CAPLUS

CN 2H-Imidazol-2-one, 1,3-dihydro-1-[2-hydroxy-3-(1-piperidinyl)propyl]-, oxime (9CI) (CA INDEX NAME)



L20 ANSWER 35 OF 66 CAPLUS COPYRIGHT 2003 ACS

AN 1988:400143 CAPLUS

DN 109:143

TI Regioselective formation of a misonidazole-glutathione conjugate as a function of pH during chemical reduction

AU Chacon, Enrique; Morrow, Cary J.; Leon, Alberto A.; Born, Jerry L.; Smith, Brian R.

CS Coll. Pharm., Univ. New Mexico, Albuquerque, NM, 87131, USA

SO Biochemical Pharmacology (1988), 37(2), 361-3 CODEN: BCPCA6; ISSN: 0006-2952

DT Journal

LA English

AB In investigations concerned with the chem. synthesis of misonidazole-glutathione conjugate (MISO-GSH), it was found that the selectivity for the formation of the C-4 or C-5 conjugate isomers was influenced significantly by the pH of the reaction mixt. The work described characterizes the influence of the reaction medium on the regioselective binding of GSH to a reductively-generated, MISO-derived electrophile. Observations of the pH-dependent, regioselective formation of the MISO-GSH adduct have provided an opportunity to probe the reductive activation of MISO. The use of tritiated MISO facilitated MISO-GSH isolation and quantitation.

IT 86356-71-0 86356-72-1

RL: FORM (Formation, nonpreparative) (formation of, pH in relation to)

RN 86356-71-0 CAPLUS

CN Glycine, N-[S-[2-amino-1-(2-hydroxy-3-methoxypropyl)-1H-imidazol-4-yl]-N-L-.gamma.-glutamyl-L-cysteinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 86356-72-1 CAPLUS

CN Glycine, N-[S-[2-amino-1-(2-hydroxy-3-methoxypropyl)-1H-imidazol-5-yl]-N-L-.gamma.-glutamyl-L-cysteinyl]- (9CI) (CA INDEX NAME)

ANSWER 36 OF 66 CAPLUS COPYRIGHT 2003 ACS

1986:586804 CAPLUS AN

DN 105:186804

DNA damage induced by reductively activated nitroimidazoles - pH effects ΤI

Edwards, D. I.; Knight, R. C.; Zahoor, A. ΑU CS

Dep. Paramed. Sci., North East London Polytech., London, E15 4LZ, UK International Journal of Radiation Oncology, Biology, Physics (1986), SO 12(7), 1207-9

CODEN: .IOBPD3; ISSN: 0360-3016

DΤ Journal

LA English

The effect of pH on Escherichia coli DNA damage measured viscometrically AΒ and induced by electrolytically reduced metronidazole and misonidazole has been studied, together with the effect on the statistical av. no. of electrons required for redn., measured by high-resoln. coulometry, and nitrite prodn. measured colorimetrically. In general, nitroimidazole-induced DNA damage is greatest at acid pH and decreased at alk. pH, but whereas metronidazole exhibits a linear relation between DNA damage and increased pH, misonidazole shows a plateau at pH 6-8. The electron requirements for complete redn. (n) vary with pH. For misonidazole, n increases with an increase in pH both in the absence and presence of DNA with a shallow plateau at pH 6-8. In contrast, for metronidazole, n decreases with increased pH and exhibits breakpoints at pH 6-8. NO2- prodn. is linear with increased pH for misonidazole; for metronidazole, NO2- prodn. shows a sudden increase at 7.5 yielding .apprx.35% on a molar basis. The results may reflect differences in the relative stability and reactivity of the nitro radical anion.

ΙT 78524-63-7

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (DNA damage from, pH effects in)

RN 78524-63-7 CAPLUS

1H-Imidazole-1-ethanol, 2-(hydroxyamino)-.alpha.-(methoxymethyl)- (9CI) CN (CA INDEX NAME)

ANSWER 37 OF 66 CAPLUS COPYRIGHT 2003 ACS L20

AN 1986:586747 CAPLUS

105:186747 . DN

Identification of a reactive glutathione conjugate as a metabolite of ΤI SR-2508 in CHO cells

Varghese, Alummoottil J.; Whitmore, Gordon F. ΑU

Phys. Div., Ontario Cancer Inst., Toronto, ON, M4X 1K9, Can. CS

International Journal of Radiation Oncology, Biology, Physics (1986), SO 12(7), 1223-6 CODEN: IOBPD3; ISSN: 0360-3016

DTJournal

LΑ English

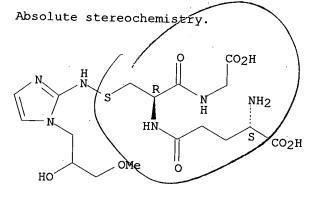
The reaction between GSH and the hydroxylamine deriv. of SR 2508 results AΒ in the formation of 2 stable conjugates identified as 2-amino-4-Sglutathionyl and 2-amino-5-S-glutathionyl imidazoles. These stables conjugates are apparently formed from a reactive deriv. of the hydroxylamine that is sufficiently stable to be isolated after HPLC sepn. The phys. and chem. properties of this deriv. are consistent with it being a GSH conjugate in which the glutathionyl residue is attached to the 2-amino N of the imidazole moiety through S. With excess GSH, under physiol. conditions, it forms a mixt. of the 2 stable GSH conjugate has been detected and suggests the possibility of GSH functioning as a carrier of a toxic metabolite of 2-nitroimidazoles under certain conditions.

104953-86-8

RL: BIOL (Biological study) (formation and identification of, in SR2508 metab. and conjugation with glutathione in CHO cells)

RN104953-86-8 CAPLUS

Glycine, N-[N-L-.gamma.-glutamyl-S-[[1-(2-hydroxy-3-methoxypropyl)-1H-CN imidazol-2-yl]amino]-L-cysteinyl]- (9CI) (CA INDEX NAME)





86356-71-0 86356-72-1 ΙT

RL: FORM (Formation, nonpreparative) (formation of, from SR 2508 metab. and conjugation with glutathione in CHO cells)

RN 86356-71-0 CAPLUS

Glycine, N-[S-[2-amino-1-(2-hydroxy-3-methoxypropyl)-1H-imidazol-4-yl]-N-L-CN .gamma.-glutamyl-L-cysteinyl]- (9CI) (CA INDEX NAME)

RN 86356-72-1 CAPLUS

CN Glycine, N-[S-[2-amino-1-(2-hydroxy-3-methoxypropyl)-1H-imidazol-5-yl]-N-L.gamma.-glutamyl-L-cysteinyl]- (9CI) (CA INDEX NAME)

ANSWER 38 OF 66 CAPLUS COPYRIGHT 2003 ACS L20

AN 1986:552996 CAPLUS

DN 105:152996

Chemical reduction of the radiosensitizer misonidazole by zinc or glucose TI

Gattavecchia, Enrico; Tonelli, Domenica ΑU

Ist. Sci. Chim., Univ. Bologna, Bologna, Italy CS

Journal of the Chemical Society, Perkin Transactions 2: Physical Organic SO Chemistry (1972-1999) (1986), (5), 689-93 CODEN: JCPKBH; ISSN: 0300-9580

DTJournal

LΑ English

AΒ Misonidazole (I; R = NO2) (II) was reduced by Zn dust or glucose in almost neutral or alk. solns. TLC of the redn. mixts. showed the presence of several products. Two of them were identified as the azo and the azoxy derivs. of II. When the redn. was carried out in alk. soln., another reaction, competitive with the redn., was obsd. This reaction, involving the loss of the NO2 group, led to 2 products: I (R = OH), from nucleophilic substitution by OH-, and III, from an intramol. displacement. This kind of denitrative process must be considered when the redn. of II is performed at basic pHs. In such conditions 2 other redn. products were identified and a possible mechanism for their formation is suggested.

ΙT 104478-85-5P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

RN 104478-85-5 CAPLUS

1H-Imidazole-1-ethanol, .alpha.-(methoxymethyl)-2-(nitroamino)- (9CI) CN (CA INDEX NAME)

ANSWER 39 OF 66 CAPLUS COPYRIGHT 2003 ACS L20

1986:454118 CAPLUS ΑN

DN 105:54118

Properties of 2-hydroxylaminoimidazoles and their implications for the ΤI biological effects of 2-nitroimidazoles

ΑU Varghese, A. J.; Whitmore, G. F.

Phys. Div., Ontario Cancer Inst., Toronto, ON, M4X 1K9, Can. CS

Chemico-Biological Interactions (1985), 56(2-3), 269-87 SO CODEN: CBINA8; ISSN: 0009-2797

DΤ Journal

LΑ English

In aq. soln., in the presence of NH4Cl, N1-substituted 2-nitroimidazofes AB are readily reduced to the corresponding hydroxylamines. In air/ under neutral conditions, analogous to the reactions of arom. hydroxylamines, 2-hydroxyaminoimidazoles are converted to the azoxy derivs. via a base-catalyzed condensation reaction between the hydroxylamine and its oxidn. product, the nitroso deriv. In N, rearrangement to form the 2-amino-4(5)-hydroxyimidazole deriv. followed by addn. of water across the C4-5 double bond to yield isomers of a 4,5-dihydro-4,5-dihydroxy deriv. appears to be a major reaction. 2-Hydroxylaminoimidazoles undergo a complex series of reactions with glutathione. The initial reaction is the formation of a labile conjugate involving an N-S-linkage. Subsequently in the presence of excess GSH, under neutral conditions, 2 stable conjugates identified as 2-amino-4-S-glutathionyl- and 2-amino-5-S-glutathionyl imidazoles are formed. Nucleophilic attack by GSH on the imidazole ring of a nitrenium ion is postulated as the initial step in the formation of the stable GSH conjugates as well as the 2-amino-4,5-dihydro dihydroxy deriv. The results provide a mol. mechanism for many of the biol. effects of N1-substituted 2-nitroimidazoles in hypoxic mammalian cells.

ΙT 78524-63-7 102998-01-6 102998-02-7

RL: BIOL (Biological study)

(prepn. or formation of, in hypoxic mammalian cells, biol. effects of nitroimidazoles in relation to)

RN78524-63-7 CAPLUS

1H-Imidazole-1-ethanol, 2-(hydroxyamino)-.alpha.-(methoxymethyl)- (9CI) CN (CA INDEX NAME)

RN 102998-01-6 CAPLUS

2H-Imidazol-2-one, 1-(2,3-dihydroxypropyl)-1,3-dihydro-, oxime (9CI) CN INDEX NAME)

RN 102998-02-7 CAPLUS CN 2H-Imidazol-2-one, 1-[3-(1-aziridinyl)-2-hydroxypropyl]-1,3-dihydro-, oxime (9CI) (CA INDEX NAME)

# 10/009,607

ANSWER 40 OF 66 CAPLUS COPYRIGHT 2003 ACS

1986:30952 CAPLUS AN

DN 104:30952

The influence of thiols on the pre-irradiation incubation effect of ΤI nitroimidazoles in E. coli cells

Anderson, Robert F.; Patel, Kantilal B.; Stratford, Michael R. L. ΑU CS

Gray Lab., Mount Vernon Hosp., Northwood/Middlesex, HA6 2RN, UK SO

International Journal of Radiation Biology and Related Studies in Physics, Chemistry and Medicine (1985), 48(4),  $48\overline{5}$ -94 CODEN: IJRBA3; ISSN: 0020-7616

DT Journal

English LA

The increase in the degree of radiosensitization of Escherichia coli cells AΒ following prolonged pre-irradn. incubation with nitroimidazoles is not correlated with the loss of intracellular nonprotein thiols (NPSH) alone. The rates of redn. of the nitro compds. and the NPSH removal do not show strong dependencies on the lipophilicities of the nitroimidazoles whereas the highly lipophilic compd. RGW-609 effects an increase in radiosensitization in a much shorter incubation time than the other nitroimidazoles. Exogenous dithiothreitol (DTT) increased he rate of redn. of misonidazole in the cells but did not alter the fraction converted to the amine. Added DTT (0.15 mmol/dm3) completely protected against the pre-irradn. incubation effect of misonidazole (2.5 mmol/dm3) when added at the start of the incubation but only partially protected when added before irradn. It is suggested that NPSH can intercept metabolite(s) (or their precursors) of nitroimidazoles which can potentiate cell killing by radiation.

ΙT 88454-11-9

RL: BIOL (Biological study)

(metab. of and radiosensitization by, in Escherichia coli, nonprotein thiols in relation to)

88454-11-9 CAPLUS RN

1H-Imidazole-1-ethanol, 2-amino-.alpha.-(methoxymethyl)-, compd. with CN 2,4,6-trinitrophenol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 76620-73-0 CMF C7 H13 N3 O2 Source on # 79

$$\begin{array}{c|c} N & \text{NH}_2 \\ N & \text{OH} \\ CH_2-\text{CH-CH}_2-\text{OMe} \end{array}$$

CM 2

CRN 88-89-1 CMF C6 H3 N3 O7

L20 ANSWER 41 OF 66 CAPLUS COPYRIGHT 2003 ACS

AN 1985:500919 CAPLUS

DN 103:100919

TI Comparative distribution of misonidazole and its amine metabolite in female Swiss Webster mice

AU Born, Jerry L.; Hadley, William H.

CS Coll. Pharm., Univ. New Mexico, Albuquerque, NM, 87131, USA

International Journal of Radiation Oncology, Biology, Physics (1985), 11(6), 1157-61
CODEN: IOBPD3; ISSN: 0360-3016

DT Journal

LA English

The distribution of misonidazole and its terminal redn. product AΒ 1-(2-amino-1-imidazoly1)-3-methoxy-2-propanol (misoamine), were compared in female Swiss Webster mice to det. if either misonidazole or misoamine is distributed in peripheral nerves. Female Swiss Webster mice received a 100 mg/kg (5 .mu.Ci/.mu.mol) i.p. dose of either [3H]misonidazole or [3H]misoamine and the distribution of radioactivity was detd. in various tissues including sciatic nerves and other myelinated nerves. Urine from misonidazole-treated animals contained both misoamine and misonidazole (8.4 and 20.4%, resp., of the total radioactivity in the urine). Misondiazole produced higher initial tissue concns. of radioactivity than did misoamine. The relative tissue concns. of radioactive produced by misonidazole or misoamine were similar, although not identical, 48 h after administration of the drugs. Both sciatic and other myelinated nerves, were found to retain radioactivity following the administration of either misonidazole or misoamine.

IT 76620-73-0

RL: BIOL (Biological study)
(misondiazole metabolite, biodistribution of)

RN 76620-73-0 CAPLUS

CN 1H-Imidazole-1-ethanol, 2-amino-.alpha.-(methoxymethyl)- (9CI) (CA INDEX NAME)

Com

ANSWER 42 OF 66 CAPLUS COPYRIGHT 2003 ACS

1984:625874 CAPLUS AN

DN 101:225874

Metabolism and excretion of [3H]misonidazole by hypoxic rat liver ΤI

ΑU Smith, Brian R.; Born, Jerry L.

Coll. Pharm., Univ. New Mexico, Albuquerque, NM, 87131, USA CS

International Journal of Radiation Oncology, Biology, Physics (1984), SO 10(8), 1365-70 CODEN: IOBPD3; ISSN: 0360-3016

DT Journal

LΑ English

The perfused rat liver used as a model system produced the same AΒ misonidazole (MISO) metabolites as those isolated from rats given MISO, albeit reductive metab. was much less in rats. Reductive metab. of MISO by perfused livers was enhanced (estd. by measuring the rate of 1-[2-aminoimidazol-1-yl]-3-methoxy-2-propanol prodn.) by hypoxic conditions. Formation of a MISC-derived glutathione conjugate (MISO-GSH) and covalent binding of MISO-derived radioactivity to tissue protein was also enhanced by hypoxia. Depletion of hepatic GSH with di-Et maleate increased the extent of covalent binding to protein under both aerobic and hypoxic conditions, and greatly diminished the formation of MISO-GSH. These results support the hypothesis that hypoxic conditions facilitate reductive metab. of MISO to an alkylating agent, and that GSH plays an intervening role in the alkylation reaction.

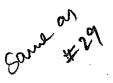
ΙT 76620-73-0

RL: BIOL (Biological study)

(as misonidazole metabolite, in liver in hypoxia)

RN 76620-73-0 CAPLUS

1H-Imidazole-1-ethanol, 2-amino-.alpha.-(methoxymethyl)- (9CI) (CA INDEX CN NAME)



L20 ANSWER 43 OF 66 CAPLUS COPYRIGHT 2003 ACS

AN 1984:606804 CAPLUS

DN 101:206804

TI Misonidazole-glutathione conjugates in CHO cells

AU Varghese, A. J.; Whitmore, G. F.

CS Phys. Div., Ontario Cancer Inst., Toronto, ON, M4X 1K9, Can.

International Journal of Radiation Oncology, Biology, Physics (1984), 10(8), 1341-5
CODEN: IOBPD3; ISSN: 0360-3016

DT Journal

LA English

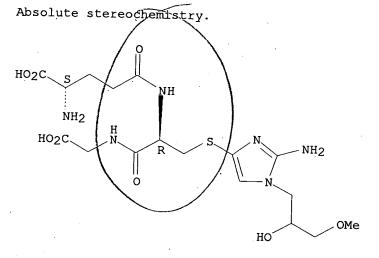
AB The detection of misonidazole-glutathione conjugates in CHO cells in hypoxia was performed by HPLC and UV detection. The addn. of glutathione to the cells increased the yield of conjugates. The misonidazole-glutathione conjugate was also obsd. in a liver ext. from a C3H mouse administered [14C]misonidazole.

IT 86356-71-0 86356-72-1

RL: FORM (Formation, nonpreparative)
(formation of, in CHO cells in hypoxia and liver cells)

RN 86356-71-0 CAPLUS

CN Glycine, N-[S-[2-amino-1-(2-hydroxy-3-methoxypropyl)-1H-imidazol-4-yl]-N-L-.gamma.-glutamyl-L-cysteinyl]- (9CI) (CA INDEX NAME)



RN 86356-72-1 CAPLUS

CN Glycine, N-[S-[2-amino-1-(2-hydroxy-3-methoxypropyl)-1H-imidazol-5-yl]-N-L-.gamma.-glutamyl-L-cysteinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L20 ANSWER 45 OF 66 CAPLUS COPYRIGHT 2003 ACS

AN 1984:205728 CAPLUS

DN 100:205728

TI 2-Hydroxylaminoimidazoles - unstable intermediates in the reduction of 2-nitroimidazoles

AU McClelland, Robert A.; Fuller, J. Roderick; Seaman, N. Esther; Rauth, A. Michael; Battistella, Rena

CS Scarborough Coll., Univ. Toronto, Toronto, ON, M5S 1A1, Can.

SO Biochemical Pharmacology (1984), 33(2), 303-9 CODEN: BCPCA6; ISSN: 0006-2952

DT Journal

LA English

AB An unstable 2-hydroxylaminoimidazole [2-(hydroxyamino)-1-methylimidazole] was prepd. by the reaction of 2-fluoro-1-methylimidazole with NH2OH. This substance was sufficiently stable (half-life of 1-2 days) in acid solns. to be obsd. and characterized by NMR spectroscopy; decompn. at neutrality was, however, rapid (half-life of 1-10 min). Radiochem. and electrochem. redn. expts. were carried out at pH 4 and 7 with 2-nitro-1-methylimidazole and misonidazole. A 4-electron stoichiometry was found in every case. The pH 4 reduced product was identified as the 2-hydroxylamino deriv. (>80% yield). The pH 7 reduced solns., on the other hand, showed no arom. 1H NMR signals, suggesting that a simple imidazole ring was no longer present. A shift to pH 7 of the hydroxylamine produced at pH 4, however, resulted in very similar NMR spectra. The conclusion, therefore, is that but it was not stable.

IT 78524-63-7

RL: BIOL (Biological study)
(misonidazole redn. product)

RN 78524-63-7 CAPLUS

CN 1H-Imidazole-1-ethanol, 2-(hydroxyamino)-.alpha.-(methoxymethyl)- (9CI) (CA INDEX NAME)



ANSWER 46 OF 66 CAPLUS COPYRIGHT 2003 ACS

AN 1984:102594 CAPLUS

DN 100:102594

Reactions of nitroimidazoles with hydrazine TI

Goldman, P.; Ramos, Socorro M.; Wuest, James D. ΑU CS

Dep. Pharmacol., Harvard Med. Sch., Boston, MA, 02215, USA SO

Journal of Organic Chemistry (1984), 49(5), 932-5

CODEN: JOCEAH; ISSN: 0022-3263

DTJournal

LА English

Metronidazole (I) reacts with N2H4 in the presence or absence of Pd to AΒ give triazole II, glyoxal dihydrazone, and ethanolammonium nitrite. Analogous reactions occur with other 4- and 5-nitroimidazoles and other hydrazines, but 2-nitroimidazoles are reduced in the presence of Pd to the 2-aminoimidazoles. A mechanism is proposed for the fragmentation of the 4- and 5-nitroimidazoles, and the relevance to in vivo processes is discussed.

ΙT 76620-73-0P 88454-11-9P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

RN76620-73-0 CAPLUS

1H-Imidazole-1-ethanol, 2-amino-.alpha.-(methoxymethyl)- (9CI) CN NAME)

$$\begin{array}{c|c} \text{N} & \text{NH}_2 \\ \text{N} & \text{OH} \\ \text{CH}_2-\text{CH}-\text{CH}_2-\text{OMe} \end{array}$$

88454-11-9 CAPLUS RN

1H-Imidazole-1-ethanol, 2-amino-.alpha.-(methoxymethyl)-, compd. with 2,4,6-trinitrophenol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 76620-73-0 CMF C7 H13 N3 O2

CM 2

CRN 88-89-1 CMF C6 H3 N3 O7

## 10/009,607

L20 ANSWER 47 OF 66 CAPLUS COPYRIGHT 2003 ACS

AN 1984:2825 CAPLUS

DN 100:2825

TI Cytotoxic properties of hydroxylamino- and aminomisonidazole, possible metabolic products of misonidazole, in hypoxic HeLa S3 cells

AU Murayama, Chieko; Hori, Hitoshi; Mori, Tomoyuki; Inayama, Seiichi

CS Sch. Med., Tokai Univ., Isehara, 259-11, Japan SO Gann (1983), 74(5), 693-9

O Gann (1983), 74(5), 693-8 CODEN: GANNA2; ISSN: 0016-450X

DT Journal

LA English

AB Misonidazole, a deriv. of 2-nitroimidazole, has selective cytotoxic activity on hypoxic cells in addn. to its radiosensitizing activity. This cytotoxicity is considered to be due to metabolic redn. of the drug. A possible metabolite seems to be hydroxylaminomisonidazole, an intermediate product derived via redn. of the nitro group. Authentic samples of hydroxylamino- and aminomisonidazole (a final redn. product) were synthesized and their cytotoxicity towards HeLa (S3 cells was compared with that of misonidazole. After a 3-h exposure to 1mM hydroxylaminomisonidazole under aerobic and hypoxic conditions, the surviving cell fractions were 0.18 and 0.0056, resp. This represents a cytotoxicity 5 and 125-fold greater, resp., than that of misonidazole. Under the same conditions, aminomisonidazole showed no apparent

IT 76620-73-0 78524-63-7

RL: PRP (Properties)

(toxicity of, to HeLa cells exposed to hypoxic conditions)

RN 76620-73-0 CAPLUS

CN 1H-Imidazole-1-ethanol, 2-amino-.alpha.-(methoxymethyl)- (9CI) (CA INDEX NAME)

Come #50

RN 78524-63-7 CAPLUS

CN 1H-Imidazole-1-ethanol, 2-(hydroxyamino)-.alpha.-(methoxymethyl)- (9CI) (CA INDEX NAME)

ANSWER 48 OF 66 CAPLUS COPYRIGHT 2003 ACS

AN 1983:608896 CAPLUS

DN 99:208896

Misonidazole neurotoxicity in mice decreased by administration with TI ΑU

Eifel, Patricia J.; Brown, Dennis M.; Lee, William W.; Brown, J. Martin

Sch. Med., Stanford Univ., Stanford, CA, 94305, USA CS

International Journal of Radiation Oncology, Biology, Physics (1983), SO 9(10), 1513-19 CODEN: IOBPD3; ISSN: 0360-3016

DT Journal

LΑ English

A series of toxicol. and pharmacol. expts. was performed to test the AΒ hypothesis that alterations of pyridoxine (vitamin B6) metab. may play an important role in the development of misonidazole (MISO) neurotoxicity. The formation of a Schiff's base between the final redn. product of MISO, 2-amino-MISO (NH2-MISO), and pyridoxal-HCl in EtOH was demonstrated. Mice receiving daily i.p. injections of MISO suffered less toxicity (as detd. by survival, wt. gain, and neurol. tests) when large doses of pyridoxine-HCl (PYR) were delivered concomitantly, and consequently were able to tolerate administration of more than twice as many MISO injections. PYR did not alter the pharmacokinetics of MISO, either when given simultaneously or when given by multiple repeated daily injections prior to MISO. The administration of PYR also did not alter the radiosensitization by MISO in an in vivo-in vitro cloning assay with the EMT6 tumor in BALB/c mice. If depletion or altered metab. of pyridoxine by reduced metabolites is also responsible for the neurotoxic effects of nitroimidazoles in humans, then concomitant administration of pyridoxine (in doses greater than the molar quantity of NH2-MISO formed) should inhibit the development of such symptoms and allow administration of larger doses of MISO than are currently clin. employable.

ΙT 76620-73-0

RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with pyridoxal hydrochloride)

RN76620-73-0 CAPLUS

1H-Imidazole-1-ethanol, 2-amino-.alpha.-(methoxymethyl)- (9CI) CNNAME)

NH<sub>2</sub> OH  $CH_2-CH-CH_2-OMe$ 

### 10/009,607

- ANSWER 49 OF 66 CAPLUS COPYRIGHT 2003 ACS
- 1983:572035 CAPLUS AN
- DN 99:172035
- Toxic and radiosensitizing effect of reduced nitroimidazoles on E. coli ΤI B/r cells
- Ryabchenko, N. I.; Semin, Yu. A.; Petrova, K. M.; Kutmin, A. I. ΑU
- Sci. Res. Inst. Med. Radiol., Obninsk, USSR CS
- SO Radiobiologiya (1983), 23(4), 505-9 CODEN: RADOA8; ISSN: 0033-8192
- DT Journal
- LΑ Russian
- Reduced metronidazole and reduced misonidazole were more toxic to hypoxic AΒ and oxygenated Escherichia coli .beta./r cells than were the nonreduced nitroimidazoles. Reduced metronidazole was also a more effective radiosensitizer of hypoxic E. coli .beta./r cells than the nonreduced compd. It had no radiosensitizing effect on oxygenated E. coli cells, however. The rate of chem. redn. of metronidazole and misonidazole by NH4Cl and Zn in Ar or O atms. was studied spectrophotometrically.
- ΙT 76620-73-0

RL: PRP (Properties)

(toxicity of, in Escherichia coli in hypoxic and oxygenated culture)

RN 76620-73-0 CAPLUS

1H-Imidazole-1-ethanol, 2-amino-.alpha.-(methoxymethyl)- (9CI) CN NAME)

$$\begin{array}{c|c} N & \text{NH}_2 \\ N & \text{OH} \\ \text{CH}_2-\text{CH}-\text{CH}_2-\text{OMe} \end{array}$$

Sount or 129

ANSWER 50 OF 66 CAPLUS COPYRIGHT 2003 ACS L20

AN 1983:515502 CAPLUS

DN 99:115502

Reduction of nitroheterocyclic compounds by mammalian tissues in vivo ΤI ΑU

Yeung, Tin Chuen; Sudlow, Gillian; Koch, Ronald L.; Goldman, Peter CS

Harvard Med. Sch., Beth Israel Hosp., Boston, MA, 02215, USA

SO Biochemical Pharmacology (1983), 32(14), 2249-53 CODEN: BCPCA6; ISSN: 0006-2952

DT Journal

LΑ English

To det. whether nitro group redn. occurs in mammalian tissues, AΒ metronidazole (I) [443-48-1] (0.021,0.064 and 10 mg/kg), misonidazole [13551-87-6] (0.015 mg/kg) and nitrofurazone [59-87-0] (0.13 mg/kg) were administered to germ-free rats. A reduced metabolite [1-(2-aminoimidazol-1-y1)-3-methoxypropan-2-ol] [76620-73-0] and 2 of its hydrolysis products, urea [57-13-6] and (2-hydroxy-3-methoxypropyl)guanidine [82124-88-7], were found in the urine of germ-free rats that received misonidazole. When nitrofurazone was administered, a reduced metabolite, 4-cyano-2-oxobutyraldehyde semicarbazone [87015-72-3], was detected in the urine. However, acetamide [60-35-5] and N-(2-hydroxyethyl) oxamic acid [5270-73-5], fragmentation products from the redn. of metronidazole, were not found in significant concns. in the urine when germ-free rats received metronidazole. Apparently metronidazole is reduced so much more slowly than misonidazole and nitrofurazone in the tissues of germ-free rats that its reductive metabolites are not detectable. This observation may be explained by the one-electron redn. potential of these drugs, that of metronidazole being lower than those of either misonidazole or nitrofurazone. Under these circumstances, metronidazole redn. is not detected, either because its radical anion forms more slowly than that of the other nitroheterocyclic compds. or because its radical anion interacts more rapidly with O to restore the parent compd. Some on \$ 29

IT 76620-73-0

RL: BIOL (Biological study) (as misonidazole metabolite)

RN 76620-73-0 CAPLUS

1H-Imidazole-1-ethanol, 2-amino-.alpha.-(methoxymethyl)- (9CI) CN (CA INDEX NAME)

L20 ANSWER 51 OF 66 CAPLUS COPYRIGHT 2003 ACS

AN 1983:435344 CAPLUS

DN 99:35344

TI Glutathione conjugates of misonidazole

AU Varghese, A. J.

CS Phys. Div., Ontario Cancer Inst., Toronto, ON, M4X 1K9, Can.

Biochemical and Biophysical Research Communications (1983), 112(3), 1013-20 CODEN: BBRCA9; ISSN: 0006-291X

DT Journal

LA English

AB The hydroxylamine deriv. of misonidazole reacts with GSH under physiol. conditions to form 2 isomeric conjugates. Based on phys. and chem. properties., the 2 conjugates have been identified as 1-[2-amino-(4-glutathion-S-yl)-1-imidazolyl]-3-methoxypropanol and 1-[2-amino-(5-glutathion-S-yl)-1-imidazolyl]-3-methoxypropranol. The formation of the GSH conjugates of reduced misonidazole offers a mol. mechanism for the depletion of GSH in mammalian cells after exposure to misonidazole under

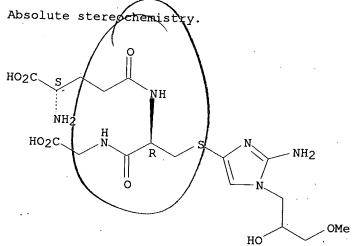
IT 86356-71-0 86356-72-1

RL: FORM (Formation, nonpreparative)

(formation of, from reduced GSH reaction with misonidazole)

RN 86356-71-0 CAPLUS

CN Glycine, N-[S-[2-amino-1-(2-hydroxy-3-methoxypropyl)-1H-imidazol-4-yl]-N-L-.gamma.-glutamyl-L-cysteinyl]- (9CI) (CA INDEX NAME)



RN 86356-72-1 CAPLUS

CN Glycine, N-[S-[2-amino-1-(2-hydroxy-3-methoxypropyl)-1H-imidazol-5-yl]-N-L.gamma.-glutamyl-L-cysteinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 78524-63-7

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with glutathione)

RN 78524-63-7 CAPLUS

CN 1H-Imidazole-1-ethanol, 2-(hydroxyamino)-.alpha.-(methoxymethyl)- (9CI) (CA INDEX NAME)

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ANSWER 52 OF 66 CAPLUS COPYRIGHT 2003 ACS
 AN
       1982:615893 CAPLUS
 DN
       97:215893
 ΤI
      Cephalosporin derivatives
 IN
      Jung, Frederic Henri; Davies, Gareth Morse
      I.C.I.-Pharma S. A., Fr.; Imperial Chemical Industries PLC
 PA
 SO
      Eur. Pat. Appl., 123 pp.
      CODEN: EPXXDW
 DT
      Patent
 LΑ
      English
 FAN.CNT 1
      PATENT NO.
                       KIND
                             DATE
                                            APPLICATION NO.
                                                              DATE
                       ----
 PΙ
      EP 55562
                        A2
                             19820707
                                            EP 1981-305958
                                                              19811218
      EP 55562
                        А3
                             19820811
      EP 55562
                        В1
                             19860212
          R: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE
      FR 2496666
                        A1
                             19820625
                                            FR 1980-27254
                                                              19801222
      ZA 8108594
                        Α
                             19821229
                                            ZA 1981-8594
                                                              19811210
      HU 27174
                        0
                             19831028
                                            HU 1981-3786
                                                              19811216
      NO 8104372
                        Α
                             19820623
                                            NO 1981-4372
                                                             19811221
      DK 8105725
                        Α
                             19820623
                                            DK 1981-5725
                                                             19811222
      FI 8104132
                        Α
                             19820623
                                            FI 1981-4132
                                                             19811222
     AU 8178786
                       Α1
                             19820701
                                           AU 1981-78786
                                                             19811222
     JP 57167991
                       A2
                             19821016
                                            JP 1981-207913
                                                             19811222
     ES 508280
                       A1
                             19830216
                                            ES 1981-508280
                                                             19811222
     US 4492692
                       Α
                             19850108
                                            US 1981-333570
                                                             19811222.
     ES 517824.
                       A1
                             19830816
                                            ES 1982-517824
                                                             19821130
PRAI FR 1980-27254
                             19801222
     CASREACT 97:215893
OS
     Cephalosporins I [X = S, O, CH2, NH, alkylimino, NCHO, NBz; R = H, Me; R1
AB
     = appropriate substituent; R2 = H, protective group; R3 = H, alkoxy,
     alkylthio; R4 = H, (un) substituted alkyl, acyl, OH, alkoxy, amino, Ph,
     substituted Ph; R5, R6 = substituted alkyl, alkoxy, alkylthio, amino,
     acyl, heterocyclic] were prepd. Thus II was obtained by hydrolyzing the
     ester obtained by treating the 7-dibromomethyleneaminocephem with
     PhCH2C(:NOH)CH2NH2. II had a min. inhibitory concn. against Escherichia
     coli 0.25 .mu.g/mL.
IΤ
     83629-69-0P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. and hydrolysis of)
     83629-69-0 CAPLUS
RN
     5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,
CN
     3-[(acetyloxy)methyl]-7-[[1-[4-(1,1-dimethylethoxy)-4-oxobutyl]-1H-
    imidazol-2-yl]amino]-8-oxo-, (6R-trans)- (9CI) (CA INDEX NAME)
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Absolute stereochemistry.

IT 83629-62-3P 83629-71-4P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

RN 83629-62-3 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 3-[(acetyloxy)methyl]-7-[[1-(4-ethoxy-4-oxobutyl)-1H-imidazol-2-yl]amino]-8-oxo-, (6R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 83629-71-4 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 3-[(acetyloxy)methyl]-7-[[1-(3-carboxypropyl)-1H-imidazol-2-yl]amino]-8-oxo-, (6R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

- ANSWER 53 OF 66 CAPLUS COPYRIGHT 2003 ACS
- 1982:451837 CAPLUS ΑN
- DN 97:51837
- The effect of temperature on the release of thymidine from DNA during TI exposure to electrolytically reduced misonidazole
- AU Knox, R. J.; Knight, R. C.; Edwards, D. I.
- Dep. Paramed. Sci., North East London Polytech., London, E15 4LZ, UK CS
- International Journal of Radiation Biology and Related Studies in Physics, Chemistry and Medicine (1982), 41(4), 465-9CODEN: IJRBA3; ISSN: 0020-7616
- DT Journal
- LA English
- Studies of the damage induced by reduced misonidazole to DNA over the AΒ temp. range of  $25-4\tilde{2}.5.$  degree. showed that cytotoxicity of misonidazole is increased in a biphasic manner as detd. by drug-induced thymine release from DNA. The results indicated that the effects which model hyperthermia are not due to increased cytotoxicity of the reduced drug but most probably to an increase in the no. of available targets in DNA.
- ΙT 76620-73-0

RL: BIOL (Biological study)

(DNA damage by, hyperthermia effect on)

RN76620-73-0 CAPLUS

1H-Imidazole-1-ethanol, 2-amino-.alpha.-(methoxymethyl)- (9CI) CN NAME)

$$\begin{array}{c|c} N & NH_2 \\ \hline & N & OH \\ & CH_2-CH-CH_2-OMe \end{array}$$



ANSWER 54 OF 66 CAPLUS COPYRIGHT 2003 ACS

1982:420002 CAPLUS AN

DN 97:20002

Comparative misonidazole metabolism in anaerobic bacteria and hypoxic ΤI Chinese hamster lung fibroblast (V-79-473) cells

Koch, Ronald L.; Rose, Christopher; Rich, Tyvin A.; Goldman, Peter

Dep. Pharmacol., Harvard Med. Sch., Boston, MA, USA CS

Biochemical Pharmacology (1982), 31(3), 411-14 CODEN: BCPCA6; ISSN: 0006-2952

DT. Journal

LΑ English

The metab. of the radiosensitizer misonidazole (I) was similar in AB anaerobic cecal contents and hypoxic Chinese hamster lung fibroblasts (V-79-473). Both systems formed the amino derivs. of I, 1-(2-aminoimidazol-1-yl)-3-methoxypropan-2-ol (II), and urea, as well as ametabolite, (2-hydroxy-3-methoxypropyl) guanidine (III), which has not been described previously. Thus, the nitro group of I is apparently reduced to form II and this then hydrolyzes to urea or III, the latter in yields of 25 and 55% in tissue culture and cecal contents, resp. Both II and III were slightly mutagenic in the Ames tester strain TA 98, but only in the presence of the system for microsomal activation.

IT 76620-73-0

RL: BIOL (Biological study)

(as misonidazole metabolite, of anaerobic bacteria and hypoxic fibroblasts)

RN 76620-73-0 CAPLUS

1H-Imidazole-1-ethanol, 2-amino-.alpha.-(methoxymethyl)- (9CI) CN NAME)

$$\begin{array}{c|c} N & \text{NH}_2 \\ \hline N & \text{OH} \\ \hline \text{CH}_2 - \text{CH} - \text{CH}_2 - \text{OMe} \end{array}$$



ANSWER 55 OF 66 CAPLUS COPYRIGHT 2003 ACS

1981:580569 CAPLUS AN

DN 95:180569

Cellular and chemical reduction products of misonidazole ΤI

Varghese, A. J.; Whitmore, G. F. ΑU

Phys. Div., Ontario Cancer Inst., Toronto, ON, Can. CS

Chemico-Biological Interactions (1981), 36(2), 141-51 SO CODEN: CBINA8; ISSN: 0009-2797

DTJournal

LΑ English

Misonidazole (I) [13551-87-6] is readily reduced by Zn dust in aq. soln. AΒ in the presence of NH4Cl. High pressure liq. chromatog. sepn. of the redn. mixt. revealed the presence of 3 products. These were identified as the hydroxylamine [78524-63-7], amine [76620-73-0] and the hydrazo deriv. of misonidazole [79295-72-0]. There is evidence that the azoxy deriv. was an intermediate in the redn. process. When the redn. was carried out in dil. soln. (0.1 mg/mL), the hydroxylamine was the only product. In concd. soln. (20 mg/mL), the hydrazo deriv. was the major product. When misonidazole was reduced with H using Pd as catalyst, the amine was the only detectable product. Of the 3 products, only the hydroxylamine was found to bind covalently to bovine albumin. In Chinese hamster ovary (CHO) cells under hypoxic conditions the amine was confirmed as one of the metabolites. There was no evidence for the presence of detectable amts. of the hydroxylamine in the cell exts. The hydroxylamine is probably the reactive redn. metabolite responsible for the in vivo and in vitro binding of misonidazole to

ΙŢ 76620-73-0 78524-63-7 79295-72-0 RL: BIOL (Biological study)

(as misonidazole redn. product)

76620-73-0 CAPLUS RN

1H-Imidazole-1-ethanol, 2-amino-.alpha.-(methoxymethyl)- (9CI) CN (CA INDEX NAME)

RN 78524-63-7 CAPLUS

1H-Imidazole-1-ethanol, 2-(hydroxyamino)-.alpha.-(methoxymethyl)- (9CI) CN (CA INDEX NAME)

79295-72-0 CAPLUS RN

1H-Imidazole-1-ethanol, 2,2'-hydrazobis[.alpha.-(methoxymethyl)- (9CI) (CA INDEX NAME)

## 10/009,607

- ANSWER 56 OF 66 CAPLUS COPYRIGHT 2003 ACS
- AN 1981:490725 CAPLUS
- DN 95:90725
- Reduction of misonidazole and its derivatives by xanthine oxidase ΤI
- Josephy, P. David; Palcic, Branko; Skarsgard, Lloyd D. ΑU
- Med. Biophys. Unit, Cancer Res. Cent., Vancouver, BC, V5Z 1L3, Can. CS
- Biochemical Pharmacology (1981), 30(8), 849-53 CODEN: BCPCA6; ISSN: 0006-2952
- DT Journal
- LΑ English
- The azo- [78130-17-3] and azoxy- [78130-16-2] derivs. of misonidazole [13551-87-6] produced by Zn redn. were reduced by xanthine oxidase (EC AB 1.2.3.2) [9002-17-9] under hypoxic conditions giving hydroxylaminomisonidazole [78524-63-7] as the main product.
- ΙT 78524-63-7
  - RL: BIOL (Biological study)

(as misonidazole xanthine oxidase redn. metabolite)

- RN 78524-63-7 CAPLUS
- 1H-Imidazole-1-ethanol, 2-(hydroxyamino)-.alpha.-(methoxymethyl)- (9CI) CN (CA INDEX NAME)

L20 ANSWER 57 OF 66 CAPLUS COPYRIGHT 2003 ACS

AN 1981:490724 CAPLUS

DN 95:90724

TI In vitro metabolism of misonidazole

AU Josephy, P. D.; Palcic, B.; Skarsgard, L. D.

CS Med. Biophys. Unit, British Columbia Cancer Res. Cent., Vancouver, BC, Can.

SO British Journal of Cancer (1981), 43(4), 443-50 CODEN: BJCAAI; ISSN: 0007-0920

DT Journal

LA English

Org.- and acid-sol. metabolites were formed and radioactivity bound to macromols. after in vitro metab. of 14C-labeled misonidazole (I) [13551-87-6] in hypoxic mammalian (CHO) cells. The org.-sol. products were sepd. by thin-layer and high-pressure liq. chromatog. and evidence presented for one of the metabolites being hydroxylaminomisonidazole [78524-63-7]. The significance of metabolic nitroredn. is

IT 78524-63-7

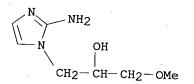
RL: BIOL (Biological study)

(as misonidazole metabolite of hypoxic animal cell)

RN 78524-63-7 CAPLUS

CN 1H-Imidazole-1-ethanol, 2-(hydroxyamino)-.alpha.-(methoxymethyl)- (9CI) (CA INDEX NAME)

- ANSWER 58 OF 66 CAPLUS COPYRIGHT 2003 ACS
- 1981:400513 CAPLUS AN
- DN 95:513
- Host and hypoxic cell toxicity studies with the terminal reduction product TI of misonidazole
- Born, Jerry L.; Hadley, William M.; Anderson, Susan L.; Yuhas, John M. ΑU CS
- Coll. Pharm., Univ. New Mexico, Albuquerque, NM, USA
- Radiat. Sensitizers: Their Use Clin. Manage. Cancer, [Proc. Conf.] SO (1980), Meeting Date 1979, 79-82. Editor(s): Brady, Luther W. Publisher: Masson USA, New York, N. Y. CODEN: 450JAG
- DT Conference
- LΑ English
- Misonidazole (I) [13551-87-6] was much less toxic to mice than its AB terminal redn. product, 1-(2-aminoimidazol-1-yl)-3-methoxy-2-propanol (II) [76620-73-0], prepd. by redn. of I with H gas and Pt catalyst. The i.p. LD50 values were 1627 and 197 mg/kg, resp. In contrast, II was far less cytotoxic than I to cultured carcinoma cells under hypoxic conditions. Neither compd. was cytotoxic when incubated with cells under aerobic conditions.
- ΙT 76620-73-0 RL: BIOL (Biological study) (as misonidazole redn. product, cytotoxicity and host toxicity of, hypoxia in relation to)
- RN 76620-73-0 CAPLUS
- CN 1H-Imidazole-1-ethanol, 2-amino-.alpha.-(methoxymethyl)- (9CI) (CA INDEX NAME)



ANSWER 59 OF 66 CAPLUS COPYRIGHT 2003 ACS

1981:153141 CAPLUS AN

DN 94:153141

Role of the intestinal flora in the metabolism of misonidazole ΤI

Koch, Ronald L.; Beaulieu, Bernard B., Jr.; Goldman, Peter AU CS

Dep. Pharmacol., Beth Israel Hosp., Boston, MA, 02215, USA

Biochemical Pharmacology (1980), 29(24), 3281-4 CODEN: BCPCA6; ISSN: 0006-2952

DTJournal

LΑ English

The radiation sensitizer misonidazole (I) was metabolized to its amino AΒ deriv. (II) by pure or mixed cultures of intestinal microflora. II was excreted by normal, but not germfree, rats treated with I and was metabolized to CO2 by pure and mixed cultures. In cultures of Clostridium perfringens lacking urease, CO2 release required urease addn., suggesting that urea is an intermediate in this pathway. ΙT

76620-73-0

RL: BIOL (Biological study)

(as misonidazole metabolite, of intestinal flora)

RN 76620-73-0 CAPLUS

CN 1H-Imidazole-1-ethanol, 2-amino-.alpha.-(methoxymethyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} N & \text{NH}_2 \\ \hline & N & \text{OH} \\ & & \\ \text{CH}_2-\text{CH}-\text{CH}_2-\text{OMe} \end{array}$$



ANSWER 60 OF 66 CAPLUS COPYRIGHT 2003 ACS

AN 1981:114124 CAPLUS

DN 94:114124

Detection of the amine derivative of misonidazole in human urine by ΤI high-pressure liquid chromatography

ΑU Varghese, A. J.

Phys. Div., Ontario Cancer Inst., Toronto, ON, M4X 1K9, Can. CS

Analytical Biochemistry (1981), 110(1), 197-200 SO CODEN: ANBCA2; ISSN: 0003-2697

DTJournal

LΑ English

A sensitive high-pressure liq. chromatog. assay for the detection and AB quantitation of the misonidazole amine deriv. (I) [76620-73-0] in human urine is reported. The amine was converted to its dansyl deriv. and was sepd. on a reverse-phase .mu.Bondapak Ph column. Absorbance at 365 nm was monitored for the detection of the dansyl deriv. Using this procedure, the amine deriv. was identified as a urinary metabolite of misonidazole.

IT76620-73-0

RL: ANT (Analyte); ANST (Analytical study) (detn. of, in urine by high-pressure liq. chromatog.)

RN 76620-73-0 CAPLUS

1H-Imidazole-1-ethanol, 2-amino-.alpha.-(methoxymethyl)- (9CI) CN (CA INDEX NAME)

$$\begin{array}{c|c} N & \text{NH}_2 \\ N & \text{OH} \\ | & \\ \text{CH}_2-\text{CH}-\text{CH}_2-\text{OMe} \end{array}$$

L20 ANSWER 61 OF 66 CAPLUS COPYRIGHT 2003 ACS

AN 1979:611415 CAPLUS

DN 91:211415

TI Benzenesulfonylaminoimidazoles

IN Frehel, Daniel; Maffrand, Jean Pierre

PA Parcor, Fr.

SO Fr. Demande, 20 pp.

CODEN: FRXXBL

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	FR 2384757	<b>A</b> 1	19781020	FR 1977-8972	
	FR 2384757	B1	19790720	FR 19/1-89/2	19770325
חח	AT ED 1000	51	19/90/20		
PRA.	AI FR 1977-8972		19770325		•

The imidazoles I (R = H, halo, alkyl, NH2, acylamino; R1 = alkyl, cycloalkyl, alkenyl, alkadienyl, alkynyl, dialkylaminoalkyl, aralkyl; R2 = H, Me) were prepd. Thus, 4-AcNHC6H4SO2N:C(SMe)2 was treated with 2-ClC6H4CH2NH2 to give 96% 4-AcNHC6H4SO2N:C(SMe)NHCH2C6H4Cl-2, which was treated with HC.tplbond.CCH2NH2 to give 4-AcNHC6H4SO2N:C(NHCH2C.tplbond.CH)NHCH2C6H4Cl-2. Cyclization of the latter compd. with NaOEt gave I [R = NHAc, R1 = CH2C6H4Cl-2, R2 = H (II)] quant. II was bactericidal at 10 mg level in rats at 100 mg orally.

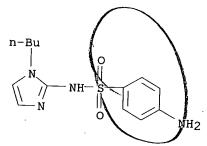
IT 71795-54-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(prepn. and bactericidal and fungicidal activity of)

RN 71795-54-5 CAPLUS

CN Benzenesulfonamide, 4-amino-N-(1-butyl-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)



IT 71795-41-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (prepn. and deacetylation of)

RN 71795-41-0 CAPLUS

CN Acetamide, N-[4-[[(1-butyl-1H-imidazol-2-yl)amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)

L20 ANSWER 63 OF 66 CAPLUS COPYRIGHT 2003 ACS

AN 1972:413886 CAPLUS

DN 77:13886

TI 1H-Imidazo[1,2-.alpha.]imidazoles

AU Miller, Laird F.; Bambury, Ronald E.

CS Hess and Clark Div., Richardson-Merrell Inc., Ashland, OH, USA

Journal of Medicinal Chemistry (1972), 15(4), 415-17 CODEN: JMCMAR; ISSN: 0022-2623

DT Journal

LA English

AB Screening of various lH-imidazo[1,2-.alpha.]imidazoles and intermediates in their synthesis for anthelmintic activity against Nematospiroides dubius and Ascaris lumbricoides and for antibacterial, antiprotozoal, central nervous, and cardiovascular activity gave neg. results. The compds. were analogs of the broad spectrum anthelmintic, tetramisole. For example, 1-methyl-6-phenyl-2,3,5,6-tetrahydro-1H-imidazo[1,2-.alpha.]imidazole-2HCl (I.2HCl) [34959-91-6] was synthesized by reacting 2-amino-1-methylimidazoline and 2-bromoacetophenone to form and refluxed with SOCl2 to yield I-2HCl.

IT 24607-97-4 37151-34-1 37162-77-9

37162-78-0 37162-82-6

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(anthelmintic activity of)

RN 24607-97-4 CAPLUS

CN Ethanone, 2-(2,3-dihydro-2-imino-3-methyl-1H-imidazol-1-yl)-1-phenyl-, monohydrobromide (9CI) (CA INDEX NAME)

#### • HBr

RN 37151-34-1 CAPLUS

CN 1H-Imidazole-1-ethanol, 2,3-dihydro-2-imino-3-methyl-.alpha.-2-thienyl- (9CI) (CA INDEX NAME)

RN 37162-77-9 CAPLUS

CN Ethanone, 2-(2,3-dihydro-2-imino-3-methyl-1H-imidazol-1-yl)-1-(2-thienyl)-, monohydrobromide (9CI) (CA INDEX NAME)

• HBr

RN 37162-78-0 CAPLUS CN 2-Propanone 1-12

2-Propanone, 1-(2,3-dihydro-2-imino-3-methyl-1H-imidazol-1-yl)-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 37162-82-6 CAPLUS

CN 1H-Imidazole-1-ethanol, 2,3-dihydro-2-imino-3-methyl-.alpha.-phenyl- (9CI) (CA INDEX NAME)

## 10/009,607

L20 ANSWER 64 OF 66 CAPLUS COPYRIGHT 2003 ACS

AN 1972:405404 CAPLUS

DN 77:5404

TI Imidazoles. LXIII. Synthesis of imidazo[1,2-a]imidazole derivatives based on 2-aminoimidazoles

AU Priimenko, B. A.; Kochergin, P. M.

CS Zaporozh. Gos. Med. Inst., Zaporozhe, USSR

SO Khimiya Geterotsiklicheskikh Soedinenii (1971), 7(12), 1692-4 CODEN: KGSSAQ; ISSN: 0132-6244

DT Journal

LA Russian

AB -Aminoimidazoles, condensed with RCHBrCOR1, gave I (R = H, R1 = Ph, p-MeC6H4, p-MeOC6H4, p-ClC6H4, p-BrC6H4) which were cyclized under the influence of mineral or org. acids in MeOH or EtoH to give II.

22926-42-7P 24607-97-4P 36947-73-6P 36947-74-7P 36947-76-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
 (prepn. and cyclization of)

RN 22926-42-7 CAPLUS

CN Ethanone, 1-(4-bromophenyl)-2-(2,3-dihydro-2-imino-3-methyl-1H-imidazol-1-yl)-, monohydrobromide (9CI) (CA INDEX NAME)

• HBr

RN 24607-97-4 CAPLUS

CN Ethanone, 2-(2,3-dihydro-2-imino-3-methyl-1H-imidazol-1-yl)-1-phenyl-, monohydrobromide (9CI) (CA INDEX NAME)

HBr

RN36947-73-6 CAPLUS CN

Ethanone, 2-(2,3-dihydro-2-imino-3-methyl-1H-imidazol-1-yl)-1-(4-methylphenyl)-, compd. with 2,4,6-trinitrophenol (1:1) (9CI) (CA INDEX

CM 1

CRN 46826-61-3 CMF C13 H15 N3 O

2 . CM

CRN 38-89-1 CMF C6 H3 N3 O7

RN 36947-74-7 CAPLUS

CN Ethanone, 2-(2,3-dihydro-2-imino-3-methyl-1H-imidazol-1-yl)-1-(4-methoxyphenyl)-, monohydrobromide (9CI) (CA INDEX NAME)

• HBr

RN 36947-76-9 CAPLUS

CN Ethanone, 1-(4-chlorophenyl)-2-(2,3-dihydro-2-imino-3-methyl-1H-imidazol-1-yl)-, monohydrobromide (9CI) (CA INDEX NAME)

• HBr

IT 36947-72-5P 36947-75-8P 36947-77-0P 36947-79-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of)

RN 36947-72-5 CAPLUS

CN Ethanone, 2-(2,3-dihydro-2-imino-3-methyl-1H-imidazol-1-yl)-1-phenyl-, compd. with 2,4,6-trinitrophenol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 46726-51-6 CMF C12 H13 N3 O

CM 2

CRN 88-89-1 CMF C6 H3 N3 O7

RN 36947-75-8 CAPLUS

CN Ethanone, 2-(2,3-dihydro-2-imino-3-methyl-1H-imidazol-1-yl)-1-(4-methoxyphenyl)-, compd. with 2,4,6-trinitrophenol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 46913-11-5 CMF C13 H15 N3 O2

CM 2

CRN 88-89-1 CMF C6 H3 N3 O7

RN 36947-77-0 CAPLUS

CN Ethanone, 1-(4-chlorophenyl)-2-(2,3-dihydro-2-imino-3-methyl-1H-imidazol-1-yl)-, compd. with 2,4,6-trinitrophenol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 46826-62-4 CMF C12 H12 C1 N3 O

CM 2

CRN 88-89-1 CMF C6 H3 N3 O7

RN 36947-79-2 CAPLUS CN Ethanone, 1-(4-bron

Ethanone, 1-(4-bromophenyl)-2-(2,3-dihydro-2-imino-3-methyl-1H-imidazol-1-yl)-, compd. with 2,4,6-trinitrophenol (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 46826-60-2 CMF C12 H12 Br N3 O

CM 2

CRN 88-89-1 CMF C6 H3 N3 O7

### 10/009,607

L20 ANSWER 65 OF 66 CAPLUS COPYRIGHT 2003 ACS

AN 1972:25174 CAPLUS

DN 76:25174

TI Imidazoles. LXV. Synthesis of 2-aminoimidazole derivatives based on 2-haloimidazoles

AU Priimenko, B. A.; Kochergin, P. M.

CS Zaporozh. Gos. Med. Inst., Zaporozhe, USSR

SO Khimiya Geterotsiklicheskikh Soedinenii (1971), 7(9), 1248-51 CODEN: KGSSAQ; ISSN: 0132-6244

DT Journal

LA Russian

AB 1-Alkyl(or hydroxyalkyl) - 2 - bromo - 4,5 - diphenylimidazoles undergo nucleophilic substitution with NH3, alkyl-, or arylamines either in an autoclave or in DMF to give 31 corresponding 2-aminoimidazoles in yields of 44-92%.

IT 34654-31-4P 34654-32-5P 34654-34-7P 34654-46-1P 34654-48-3P 34657-76-6P 34657-77-7P 34657-78-8P 34657-79-9P 34657-80-2P

RN 34654-31-4 CAPLUS

CN 1H-Imidazole-1-ethanol, .alpha.-methyl-4,5-diphenyl-2-(phenylamino)- (9CI) (CA INDEX NAME)

RN 34654-32-5 CAPLUS

CN 1H-Imidazole-1-ethanol, .alpha.,4,5-triphenyl-2-(phenylamino)- (9CI) (CA INDEX NAME)

RN 34654-34-7 CAPLUS

CN 1H-Imidazole-1-ethanol, .alpha.-methyl-2-[(3-methylphenyl)amino]-4,5-diphenyl- (9CI) (CA INDEX NAME)

RN 34654-46-1 CAPLUS CN 1H-Imidazole-1-ethanol, 2-[(4-methylphenyl)amino]-.alpha.,4,5-triphenyl-(9CI) (CA INDEX NAME)

RN 34654-48-3 CAPLUS CN 1H-Imidazole-1-ethanol, 2-[(4-methoxyphenyl)amino]-.alpha.,4,5-triphenyl-(9CI) (CA INDEX NAME)

RN 34657-76-6 CAPLUS CN 1H-Imidazole-1-ethanol, 2-(ethylamino)-.alpha.,4,5-triphenyl- (9CI) (CA INDEX NAME)

RN 34657-77-7 CAPLUS CN 1H-Imidazole-1-ethanol, .alpha.,4,5-triphenyl-2-(propylamino)- (9CI) (CA

INDEX NAME)

RN 34657-78-8 CAPLUS CN 1H-Imidazole-1-ethanol, 2-(butylamino)-.alpha.,4,5-triphenyl- (9CI) (CA INDEX NAME)

RN 34657-79-9 CAPLUS CN 1H-Imidazole-1-ethanol, 2-[(2-methylpropyl)amino]-.alpha.,4,5-triphenyl-(9CI) (CA INDEX NAME)

RN 34657-80-2 CAPLUS
CN 1H-Imidazole-1-ethanol, .alpha.,4,5-triphenyl-2-[(phenylmethyl)amino](9CI) (CA INDEX NAME)

## 10/009;607

L20 ANSWER 66 OF 66 CAPLUS COPYRIGHT 2003 ACS

AN 1969:403325 CAPLUS

DN 71:3325

TI Synthesis of imidazo[1,2-a]imidazole

AU Kochergin, P. M.; Priimenko, B. A.

CS Vses. Nauch.-Issled. Khim.-Farm. Inst. im. Ordzhonikidze, Moscow, USSR Khimiva Geterotsiklicheskikh Soodinarii (1960)

SO Khimiya Geterotsiklicheskikh Soedinenii (1969), (1), 176-7 CODEN: KGSSAQ; ISSN: 0132-6244

DT Journal

LA Russian

The following I were obtained (R and m.p. of the HBr salt given): H, 234-6.degree. (MeOH) (decompn.); Br, 233-4.degree. (EtOH) (decompn.). I, heated with mineral acids gave the following II (R, R1, R2, and salt m.p. given): Me, H, Ph, 207-8.degree. (HBr-salt) (decompn.) (MeOH); Me, H, P-BrC6H4, 224-5.degree. (decompn.) (MeOH); Me, Me, Ph, 162-3.degree. (picrate) (MeOH); Me, Ph, Me, 209-10.degree. (picrate) (decompn.) (MeOH).

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

RN 22926-42-7 CAPLUS

CN Ethanone, 1-(4-bromopheny1)-2-(2,3-dihydro-2-imino-3-methyl-1H-imidazol-1-yl)-, monohydrobromide (9CI) (CA INDEX NAME)

## • HBr

RN 24607-97-4 CAPLUS

CN Ethanone, 2-(2,3-dihydro-2-imino-3-methyl-1H-imidazol-1-yl)-1-phenyl-, monohydrobromide (9CI) (CA INDEX NAME)

• HBr

#### => d his

(FILE 'HOME' ENTERED AT 17:52:55 ON 26 JUN 2003)

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FILE 'REGISTRY' ENTERED AT 17:52:59 ON 26 JUN 2003
 L1
                 STRUCTURE UPLOADED
 L2
              34 S L1 SSS SAM
 L3
                 STRUCTURE UPLOADED
 L4 .
              50 S L3 SSS SAM
 L5
                 SCREEN 2016 OR 2026 OR 2039 OR 2040 OR 2045 OR 2047
 L6
                 STRUCTURE UPLOADED
 L7
                 QUE L6 NOT L5
 rs
              50 S L7 SSS SAM
 L9
             899 S L7 SSS FUL
 L10
                 STRUCTURE UPLOADED
 L11
             13 S L10 SSS SAM SUB=L9
 L12
             235 S L10 SSS FUL SUB=L9
 L13
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            234 S L13
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 L15
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L16
                STRUCTURE UPLOADED
L17
                QUE L16 NOT L15
L18
             17 S L17 SSS SAM SUB=L9
            256 S L17 SSS FUL SUB≃L9
     FILE 'CAPLUS' ENTERED AT 18:08:49 ON 26 JUN 2003
L20
            66 S L19
     FILE 'CAOLD' ENTERED AT 18:09:59 ON 26 JUN 2003
=> s 119
L21
             0 L19
=> log y
COST IN U.S. DOLLARS
                                                 SINCE FILE
                                                                 TOTAL
                                                      ENTRY
                                                               SESSION
FULL ESTIMATED COST
                                                       0.40
                                                                528.86
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)
                                                 SINCE FILE
                                                                 TOTAL
                                                      ENTRY
                                                               SESSION
CA SUBSCRIBER PRICE
                                                       0.00
                                                               -42.97
STN INTERNATIONAL LOGOFF AT 18:10:13 ON 26 JUN 2003
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ANSWER 18 OF 66 CAPLUS COPYRIGHT 2003 ACS

1996:507061 CAPLUS ΑN

DN 125:211954

Nitroimidazole-based 'extruded mustards' designed as reductively activated ΤI hypoxia-selective cytotoxins

Hay, Michael P.; Denny, William A.; Wilson, William R.

Cancer Res. Lab., Univ. Auckland School Med., Auckland, N. Z. CS SO

Anti-Cancer Drug Design (1996), 11(5), 383-402 CODEN: ACDDEA; ISSN: 0266-9536

PB Oxford University Press

DTJournal

LΑ English

A new class of nitroimidazole alkanoic acid amides, designed to extrude AR para-aminophenyl mustard by intramol. cyclization following redn. of the nitro group, have been prepd. and evaluated for their ability to function as bioreductively activated prodrugs. The mechanism of activation following (bio) redn. was studied using the model compds. and the related mustard analogs. However, the reduced forms of these compds. were relatively stable and not susceptible to intramol. cyclization. This is in contrast to the corresponding 2-nitrophenylalkyl amides, where the hydroxylamino or amino redn. products undergo intramol. cyclization via a tetrahedral intermediate, resulting in cleavage of the amide and release of an activated arom. mustard. One of the 2-nitroimidazole mustards (I) had 20-fold greater toxicity towards aerobic AA8 cells than RB 6145, and a 51-fold greater toxicity towards UV4 cells (which are defective in DNA cross-link repair and thus hypersensitive to crosslinking agents). The cytotoxicity of I against AA8 cells was enhanced 3.3-fold under hypoxic conditions, but the compd. was inactive against the hypoxic subfraction of dells in KHT tumors in vivo.

ΙT 181370-50-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of nitroimidazole-based extruded mustards designed as reductively activated hypoxia-selective antitumor cytotoxins)

RN 181370-50-3 CAPLUS

1H-Imidazole-1-propanamide, 2-amino-N-(4-methoxyphenyl)- (9CI) CN (CA INDEX

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ANSWER 21 OF 66 CAPLUS COPYRIGHT 2003 ACS
     1995:659768 CAPLUS
ΑN
DN
    123:40980
    Imidazole derivatives as glutaminase inhibitors and anticancer agents
ΤI
```

Matsutani, Etsuya; Marui, Shogo ΙN

PΑ

Takeda Chemical Industries, Ltd., Japan SO

Eur. Pat. Appl., 22 pp. CODEN: EPXXDW

DTPatent

LA English

FAN. CNT 1

	PATENT NO.	KIND DATE	·	APPLICATION NO.	DATE		
PI PRAI OS	EP 656210 R: AT, BE, CA 2135597 JP 07188181 US 5552427 JP 1993-290278	AA 19950520 A2 19950725 A 19960903 19931119	FR,	GB, GR, IE, IT, LI CA 1994-2135597 JP 1994-284943	19941116 , LU, NL, I 19941118 19941118 19941121	РΤ,	SE

MARPAT 123:40980

Glutaminase-inhibiting imidazole derivs. [I; A = (substituted) lower AB alkyl, (protected) amino; B = H, (substituted) hydrocarbyl] are prepd. for use as anticancer agents. Thus, 2-aminoimidazole sulfate reacted with DMF and DMF di-Me acetal to produce 2-(dimethylaminomethylene)aminoimidazole, then with 3-bromo-1-propene to form 2-(dimethylaminomethylene)amino-1-(2propenyl) imidazole, and finally refluxed with 6N HCl to form 2-amino-1-(2-propenyl)imidazole-HCl (II). II inhibited glutaminase with an IC50 of 110 mM; other derivs. had IC50 .gtoreq.30 mM. Coated tablets were prepd. contg. 2-amino-1-methylimidazole 10.0, lactose 60.0, corn starch 35.0, gelatin 3.0, and Mg stearate 2.0 mg.

164583-59-9P 164583-60-2P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (imidazole derivs. as glutaminase inhibitors and anticancer agents)

RN 164583-59-9 CAPLUS

1H-Imidazole-1-propanoic acid, .alpha., 2-diamino-, methyl ester, dihydrochloride, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

●2 HCl

RN 164583-60-2 CAPLUS CN 1H-Imidazole-1-propanoic acid, .alpha.,2-diamino-, dihydrochloride, (S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

●2 HCl

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L20 ANSWER 28 OF 66 CAPLUS COPYRIGHT 2003 ACS
  AN
       1992:511614 CAPLUS
  DN
       117:111614
       Preparation of quinuclidinyl 2-heterocyclylalkyl-3-hydroxy-2-
 TI
      phenylpropanoates as antimuscarinic bronchodilators
 TN
      Stobie, Alan
 PA
      Pfizer Ltd., UK; Pfizer Inc.
 SO
      PCT Int. Appl., 89 pp.
      CODEN: PIXXD2
 DΤ
      Patent
 LΑ
      English
 FAN. CNT 1
      PATENT NO.
                       KIND
                             DATE
                                             APPLICATION NO.
                                                              DATE
                       ----
. PI
      WO 9204346
                        A1
                             19920319
                                             WO 1991-EP1670
                                                              19910903
          W: CA, FI, JP, US
          RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE
      CA 2073005
                             19920307
                        AA
                                            CA 1991-2073005 19910903
      CA 2073005
                        С
                             19981110
      EP 500864
                        A1
                             19920902
                                            EP 1991-915623
                                                              19910903
      EP 500864
                             20010919
                        В1
          R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE
      JP 05502454
                             19930428
                        T2
                                            JP 1991-513922
                                                              19910903
      JP 07025756
                        В4
                             19950322
      AT 205844
                        E
                             20011015
                                            AT 1991-915623
                                                              19910903
     ES 2161211
                        Т3
                             20011201
                                            ES 1991-915623
                                                             19910903
     FI 9202013
                       Α
                             19920505
                                            FI 1992-2013
                                                             19920505
     FI 97469
                        В
                             19960913
     FI 97469
                        С
                             19961227
     US 5292749
                       Α
                             19940308
                                            US 1992-852261
                                                             19920605
PRAI GB 1990-19472
                       Α
                             19900906
     GB 1991-6733
                       Α
                             19910328
     WO 1991-EP1670
                       W
                            19910903
OS
     MARPAT 117:111614
     Title compds. [I; R = COCX(CH2OH)(CH2)mR1; R1 = (substituted) imidazolyl,
AΒ
     -triazolyl, -oxadiazolyl, -pyridyl, -pyrimidinyl, etc.; X = thienyl,
     (substituted) Ph; m = 1, 2] were prepd. as bronchodilators (no data).
     Thus, CH2:CPhCO2H was esterified by (R)-3-quinuclidinol and the product
     treated with imidazole, HCHO, and NaH to give title compds. (R) - and
IT
     141831-08-5P 141831-09-6P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. of, as antimuscarinic bronchodilator)
     141831-08-5 CAPLUS
RN
    1H-Imidazole-1-propanoic acid, 2-amino-.alpha.-(hydroxymethyl)-.alpha.-
    phenyl-, 1-azabicyclo[2.2.2]oct-3-yl ester, [R-(R^*,S^*)]-(9CI) (CA INDEX
```

RN 141831-09-6 CAPLUS

CN 1H-Imidazole-1-propanoic acid, 2-amino-.alpha.-(hydroxymethyl)-.alpha.phenyl-, 1-azabicyclo[2.2.2]oct-3-yl ester, [R-(R\*,R\*)]- (9CI) (CA INDEX NAME)

# 10/009,607

L20 ANSWER 29 OF 66 CAPLUS COPYRIGHT 2003 ACS

AN 1992:255934 CAPLUS

DN 116:255934

TI Synthesis of 1-alkyl(or H)-4-(D-lyxo-tetritol-1-yl)-4-imidazolin-2-ylideneammonium picrates and chlorides

AU Fernandez-Bolanos, J.; Alaiz Barragan, M.

CS Fac. Quim., Univ. Sevilla, Seville, 41012, Spain

SO Anales de Quimica (1991), 87(5), 675-8 CODEN: ANQUEX; ISSN: 1130-2283

DT Journal

LA Spanish

OS CASREACT 116:255934

AB Title compds. I.HX (R = H, Me, n-hexyl, octyl; X = Cl or picrate) were prepd. by reaction of 1-alkyl(or H)-1-deoxy-D-lyxo-hexuloses with cyanamide, pptn. with picric acid and treatment with HCl. The chlorides were converted into N- and o-acetylated derivs.

IT 141436-05-7P 141436-06-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and acetylation of)

RN 141436-05-7 CAPLUS

CN 1,2,3,4-Butanetetrol, 1-(2-amino-1-hexyl-1H-imidazol-4-yl)-, monohydrochloride, [1R-(1R\*,2R\*,3R\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

#### HCl

RN 141436-06-8 CAPLUS

CN 1,2,3,4-Butanetetrol, 1-(2-amino-1-octyl-1H-imidazol-4-yl)-, monohydrochloride, [1R-(1R\*,2R\*,3R\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Absolute stereochemistry.

CMF C13 H25 N3 O4

CM 2

CRN 88-89-1 CMF C6 H3 N3 O7

RN 141505-40-0 CAPLUS CN 1,2,3,4-Butanetetrol, 1-(2-amino-1-octyl-1H-imidazol-4-yl)-, [1R-(1R\*,2R\*,3R\*)]-, compd. with 2,4,6-trinitrophenol (1:1) (9CI) (CA

CM 1

CRN 141505-39-7 CMF C15 H29 N3 O4

Absolute stereochemistry.

HO 
$$R$$
  $R$   $R$   $N$   $NH_2$   $NH$ 

CM 2

CRN 88-89-1 CMF C6 H3 N3 O7

L20 ANSWER 25 OF 66 CAPLUS COPYRIGHT 2003 ACS

AN 1993:650375 CAPLUS

DN 119:250375

Preparation of new 2,2-disubstituted glycerol and glycerol-like compounds, their compositions, and methods of use as platelet activating factor (PAF)

IN Solomon, Daniel; Kaminski, James J.; White, Steven K.; Lehman de Gaeta, Laura S.; Ganguly, Ashit K.

PA Schering Corp., USA

SO U.S., 51 pp. Cont. of U.S. Ser. No. 389,668, abandoned. CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

				· ·	
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PRAI	US 5185334 US 5449680 US 1989-389668 US 1991-758448	A A	19930209 19950912 19890731 19910906	US 1991-758448 US 1992-955784	19910906 19921002

OS MARPAT 119:250375

Title compds. R1OCH2CR2R4CH2R3 [I; R1 = alkyl, CONR5R6, C(S)NR5R6; R5 = H, AB (un) substituted alkyl, (hetero) aryl, aralkyl, etc.; R6 = (un) substituted alkyl, (hetero)aryl, aralkyl, etc.; or NR5R6 = (un)substituted heterocycloalkyl; R2 = alkyl, CF3, (un)substituted aryl, aralkyl; R3 = -TUV; T = OPO3, OCO2, O, S, NRa, NRaSO2, OCONRa, NRaCO2 (Ra = H, alkyl, acyl); U = (CH2)e or (CH2)fC6H4(CH2)f; e = 2-10; f = 1-3; V = -AB; A = -ABbond, O, S, O(CH2)n (n = 1-3), OCO, NRa; B = (un)substituted (hetero)(cyclo)alkyl, (hetero)aryl, various (thio)amide and amidine groups, such that  $\overline{AB}$  contains .gtoreq.1 N atom; R4 = X-(C1-6 alkyl); X = CH2, O, SOb (b = 0-2), NRa; T .noteq. OPO3 when R1 = alkyl] were prepd. as antiallergics and antiinflammatories. For example, reaction of n-C18H37NMeCO2CH2CMe(OMe)CH2OP(O)(OH)OCH2CH2Br (prepn. given) with thiazole and  ${\tt Bu4N+I-}$  at 120.degree., and conversion of the product bromide salt to its zwitterionic form by chromatog., gave I [R1 = CONMeC18H37-n, R2 = Me, R3 = OP(O)(O-)OCH2CH2X (X = thiazolio), <math>R4 = OMe] (II). At 5 .mu.M in an in vitro human plasma assay, II gave 50% inhibition of PAF-induced platelet aggregation. Several formulations, 32 synthetic examples, 42 preparatory examples, and aggregation assay results for addnl. I are given.

IT 125319-91-7P

RN

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of, as blood platelet aggregation inhibitor and PAF antagonist) 125319-91-7 CAPLUS

CN Carbamic acid, methyloctadecyl-, 3-[[7-(2-amino-1H-imidazol-1-yl)heptyl]oxy]-2-methoxy-2-methylpropyl ester (9CI) (CA INDEX NAME)

ANSWER 62 OF 66 CAPLUS COPYRIGHT 2003 ACS L20

1978:45563 CAPLUS AN

DN 88:45563

Synthesis and biological activity of some 2-aminoimidazoles ΤI ΑU

Cavalleri, B.; Volpe, G.; Arioli, V.; Parenti, F. CS

Res. Lab., Gruppo Lepetit S.p.A., Milan, Italy

Arzneimittel-Forschung (1977), 27(10), 1889-95 SO CODEN: ARZNAD; ISSN: 0004-4172

DΤ Journal

LΑ English

A series of 2-amino-4(5)-arylimidazoles and related derivs. (I) were AΒ prepd. by reacting cyanamide with substituted aminoacetophenones, and many of the compds. were shown to have a broad spectrum of antimicrobial activity in vitro. Some of the aminoimidazoles, esp. 2-amino-4(5)-(4biphenylyl)imidazole-HCl [65146-47-6], also inhibited plaque formation by Streptococcus mutans, thereby indicating an anticariogenic activity. IT

65146-51-2P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. and antimicrobial activity of)

65146-51-2 CAPLUS RN

1H-Imidazol-2-amine, 4-[1,1'-biphenyl]-4-yl-1-butyl-, monohydrochloride CN (9CI) (CA INDEX NAME)

HCl

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ANSWER 44 OF 66 CAPLUS COPYRIGHT 2003 ACS
      1984:438268 CAPLUS
 ΑN
 DN
      101:38268
 TI.
      Penicillanic acid derivatives
 IN
      Wei, Chung Chen; Weigele, Manfred
 PA
      Hoffmann-La Roche, Inc., USA
SO
      U.S., 32 pp.
      CODEN: USXXAM
DT
      Patent
LΑ
      English
FAN.CNT 1
     PATENT NO.
                       KIND
                             DATE
                                             APPLICATION NO.
                                                               DATE
PΤ
     US 4431653
                        Α
                             19840214
                                             US 1982-359326
                                                               19820318
     EP 148283
                        A1
                             19850717
                                             EP 1983-112841
                                                               19831220
         R: CH, DE, FR, GB, IT, LI
     JP 60146892
                        A2
                             19850802
                                             JP 1983-252393
                                                               19831230
     US 4537969
                        Α
                             19850827
                                             US 1984-568329
                                                               19840105
     US 4605744
                        Α
                             19860812
                                             US 1985-736185
                                                               19850520
PRAI US 1982-359326
                             19820318
     US 1984-568329
                             19840105
     CASREACT 101:38268
OS
     Penicillins I (X = bond, alkylene cycle; X1 = 5-7-membered N heterocyclic
AΒ
     cycle; R = 5-7-membered di- or triazaheterocyclyl) were prepd. Thus the
     acetal II was prepd. from 2-(4-pyridyl)ethanol in 6 steps and was treated
     with 6-aminopenicillanic acid to give III which had a min. inhibitory
     concn. against Escherichia coli 257 of 0.25 .mu.g/mL.
IT
     90747-73-2
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (hydrolysis of)
     90747-73-2 CAPLUS
RN
     Carbamic acid, [1-[3-(1-formyl-4-piperidinyl)propyl]-1H-imidazol-2-yl]-,
CN
     phenylmethyl ester (9CI) (CA INDEX NAME)
                CH2-Ph
  (CH<sub>2</sub>)<sub>3</sub>
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# IT 90747-41-4P 90748-29-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(prepn. and bactericidal activity of)

RN 90747-41-4 CAPLUS

CHO

CN 4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, 6-[[[4-[3-(2-amino-1H-

imidazol-1-yl)propyl]-1-piperidinyl]methylene]amino]-3,3-dimethyl-7-oxo-,
monohydrochloride, [2S-(2.alpha.,5.alpha.,6.beta.)]- (9CI) (CA INDEX

Absolute stereochemistry.
Double bond geometry unknown.

● HCl

RN 90748-29-1 CAPLUS

CN 4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, 6-[[[4-[3-(2-amino-1H-imidazol-1-yl)propyl]-1-piperidinyl]methylene]amino]-3,3-dimethyl-7-oxo-, [2S-(2.alpha.,5.alpha.,6.beta.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry unknown.

IT 90747-75-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction of, with DMF di-Me acetal)

RN 90747-75-4 CAPLUS

CN 1H-Imidazol-2-amine, 1-[3-(4-piperidinyl)propyl]- (9CI) (CA INDEX NAME)

IT 90747-74-3P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

RN 90747-74-3 CAPLUS

CN 1H-Imidazol-2-amine, 1-[3-(4-piperidinyl)propyl]-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl